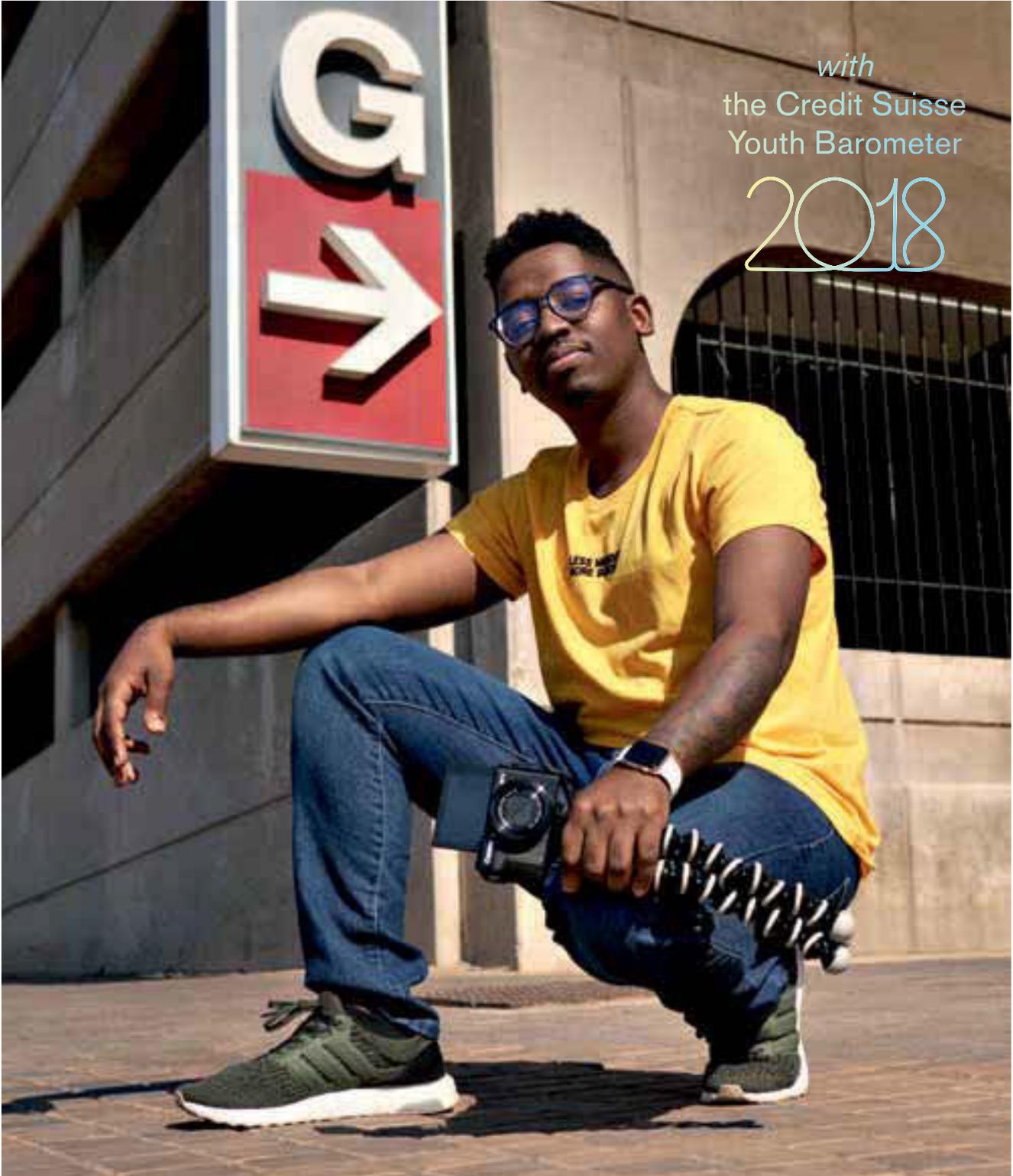


CREDIT SUISSE

# Bulletin

Since 1895. The world's oldest banking magazine. 2/2018

075360E

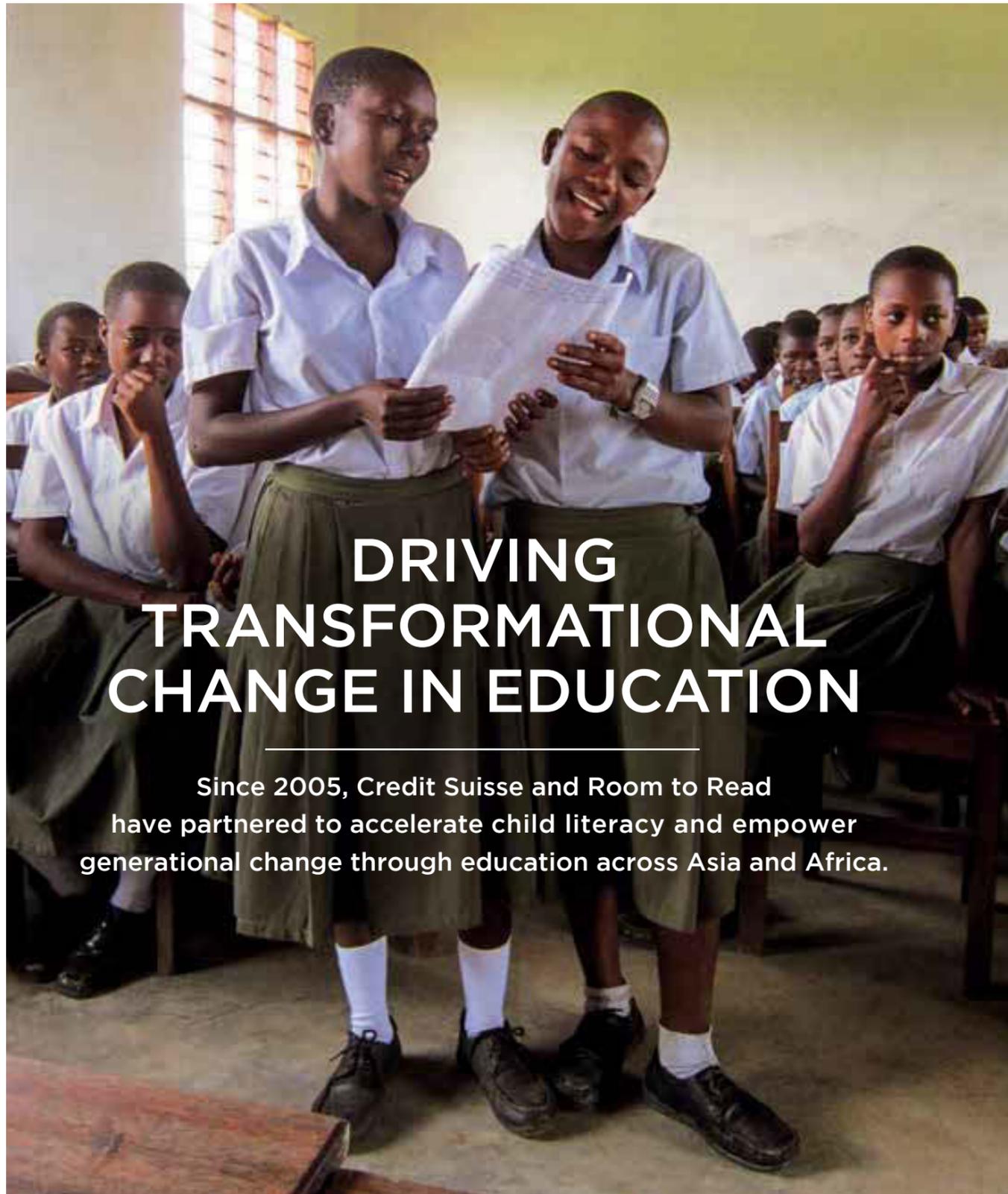


with  
the Credit Suisse  
Youth Barometer

2018

## Jobs of the Future

The Jobs of Tomorrow (and the Day After Tomorrow)



# DRIVING TRANSFORMATIONAL CHANGE IN EDUCATION

Since 2005, Credit Suisse and Room to Read have partnered to accelerate child literacy and empower generational change through education across Asia and Africa.



We envision a world in which all children can pursue a quality education that enables them to reach their full potential and contribute to their communities and the world. We are creating long-term and lasting change through Room to Read's programs. [LEARN MORE AT WWW.ROOMTOREAD.ORG](http://WWW.ROOMTOREAD.ORG)



Contributors to this issue:

### 1 – Tobias Straumann

One of the most prominent Swiss economic historians argues that digitalization – like industrialization in the 19th century – is more grounds for confidence than concern and that technological change has always created far more jobs than it has destroyed. *Page 6*

### 2 – Sara Carnazzi Weber

The economist and Head of Sector and Regional Analysis for Switzerland at Credit Suisse looks at a key question related to automation and explains how jobs in Switzerland will change. One interesting finding: Not all cantons are affected by automation to the same extent. *Page 34*

### 3 – Andreas Fink

The South America correspondent illuminates a revolutionary aspect of a new world of work in the city of Buenos Aires: the gig economy. Graphic designers, architects and marketing specialists who are unwilling or unable to find a steady job instead go from gig to gig. *Page 42*

### 4 – Jonathan Calugi

The illustrator from Pistoia, Italy, is responsible for the illustrations in the new Youth Barometer. Calugi has an unmistakable style – what at first glance appears to be childish doodles turns out to be, on closer inspection, complex geometric patterns. *Page 57*

## The Most Important Question of Our Time

Programs that rely on artificial intelligence can use intricate algorithms to devise complicated investment strategies, steer automobiles or make chess grandmasters look like novices. This is an impressive achievement. At the same time, a Japanese study has revealed how incredibly dumb computers still are: Change a single pixel in a picture and the computer thinks the horse displayed in it is a frog.

This example illustrates that machines (still) cannot do everything that people can do – and vice versa, of course. Fortunately, robots are mostly good in areas that we usually find boring: repetitive, monotonous processes. The photo essay “Jobs of the Future” (p.9) shows how people and machines might work together in the future – and create an interesting working world.

The interaction is not only harmonious – machines can also fully replace jobs. So the most important question of our time is: “Will we be put out of work?” Obviously, there are no definitive statements about the future. But in his essay (p. 6), economic historian Tobias Straumann argues that anxiety about the “end of work” has always been unfounded.

Peter Goerke, a member of the Executive Board and Chief Human Resources Officer at Credit Suisse, is even convinced that the fight for talented workers will intensify as a result of digitalization: “The human factor will become more important” (p.30). And with respect to choosing a career, he advises young people to “have the courage to do what you enjoy doing.” Are you perhaps a veterinarian, a chef or a police officer? The impact of digitalization on your profession (and 85 others) is revealed in a study conducted by Credit Suisse’s research department (p. 34).

Millennials are bearing the brunt of workplace disruption. The eighth Credit Suisse Youth Barometer (starting on p. 57) is dedicated to them. Although most young people in Switzerland feel quite secure, many respondents in the United States, Brazil and Singapore doubt that their jobs will even exist in the future. The members of this generation are serious – but also engaged. And thanks to the sharing economy, they are developing an entirely new concept of ownership.

Your editorial team

Cover: Sibumpanza (photo) is a YouTuber in Johannesburg, South Africa. The global influencer market is estimated at more than two billion US dollars on Instagram alone. *Page 16*.  
Photo: Jonathan Kope



# INVESTING IN EDUCATION

In Latin America, Africa, and Asia, more than 2 million children can now access a quality education thanks to Credit Suisse's support of Opportunity's EduFinance initiatives. Our partnership plays a formative role in empowering parents to send their children to school and enabling teachers to develop low-cost, high-quality learning environments. By supporting access to critical financial services and training, Credit Suisse helps school owners like Regina Githinji (pictured below) give children a chance to break the cycle of poverty by obtaining a good education.

Regina founded the Revelation Ushindi School in the slums of Kenya with just three students. Over the last eleven years, she has used a series of Opportunity loans and training to install clean running water, purchase textbooks and food for the children, pay teacher's salaries and maintain her rent payments on the now-large school property that serves 80 students. Regina is one of millions of Opportunity clients who are working their way out of poverty and, in doing so, are transforming their lives and the communities around them. [Discover more at opportunity.org.](http://opportunity.org)



"Ever since I was very young, I've been fascinated by computers."  
page 12

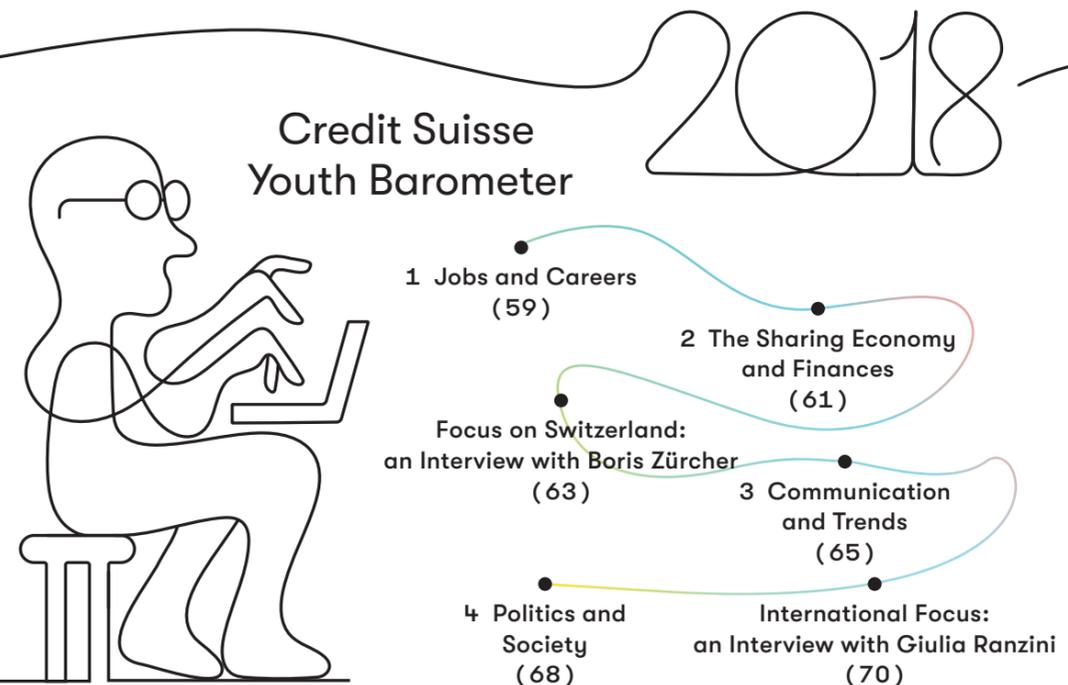
## Contents

- 6 **No, This Time Everything Will not Be Different**  
Why we're not going to run out of work.
- 9 **The Jobs of Tomorrow**  
The jobs of the future – a trip around the world in pictures.
- 18 **A Renaissance of the Liberal Arts**  
What should children be learning in the future – and what's no longer needed?
- 21 **Dream Job: Online Gamer**  
A vocational counselor talks about her experiences.
- 22 **"Our striving for something greater"**  
An in-depth conversation with ILO Director-General Guy Ryder.
- 28 **Labor Market (I)**  
Facts, figures and a dash of humor.
- 30 **"Have the courage to do what you enjoy doing"**  
Peter Goerke, Chief Human Resources Officer at Credit Suisse, talks about diversity, talent, and what makes a successful job interview.
- 34 **Occupations and Their Potential for Automation**  
A study of the current situation in Switzerland.
- 37 **Digital Switzerland**  
Ringier CEO Marc Walder explains what needs to be done.

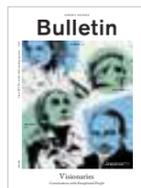
- 40 **My First Job**  
Prominent figures talk about how they started their careers.



- 42 **From Job to Job**  
How the gig economy is revolutionizing the working world.
- 52 **Labor Market (II)**  
Facts, figures and more humor.
- 54 **"Incredible resourcefulness"**  
IMF head Christine Lagarde talks about "young people today."



A major survey of the US, Brazil, Singapore and Switzerland.



## Comments

Bulletin "Visionaries" issue, 1/2018

### Laughing and crying

I just finished reading Bulletin 1/2018, and I'd like to thank you for this issue, which was extremely entertaining, informative and accessible. It made me laugh and cry – which is a testament to its quality.

*Andrei Sverchevsky, Impruneta, Italy*

### Multifaceted Roger Federer

You succeeded in presenting an even-handed, objective look at Roger Federer's multifaceted personality. At the age of 36, Federer is an ambassador for our country who is highly regarded all over the world. His integrity in dealing with his foundation is characteristic of this modest and unassuming person. He and his wife, Mirka, and their four children offer a model of family life for our young people. The interview was a pleasure to read.

*Josef Beck, ABR-Bausystem AG, Zurich*

### Misunderstanding

Unfortunately, Mr. Fukuyama misunderstood Brexit and "Trumpism." His first mistake was to use the term populism so disdainfully. Fukuyama seems to think that democracy is all right as long as people make what he deems "correct and wise" decisions. In fact, however, democracy is whatever the majority of voters decide. Brexit and Trump's election were

great moments for democracy. Changes like these protect us from brutal revolutions. These two events are rational responses by the people of two countries with a long tradition of democracy. The voters want to protect their jobs, their standard of living and their cultural values.

*Victor Lopez, Rothesay, New Brunswick, Canada*

### Entertainment all the way to Malta

At the Zurich airport I came across an older issue of the Bulletin, which entertained me all the way to Malta. I now visit the digital archive on a regular basis and read through other issues. Please keep up the good work!

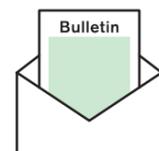
*Alberta Borg, Malta*

### Best publication for years

Bulletin is unquestionably the best publication that I have read and benefited from for many years.

*Jean Hasaerts, Waterloo, Belgium*

## Service



Subscribe to Credit Suisse Bulletin **free of charge.**

→ Send an email, including your address, to: [abo.bulletin@credit-suisse.com](mailto:abo.bulletin@credit-suisse.com)

*We appreciate every letter we receive from our readers.*

*The editors reserve the right to select and edit the letters. Write to us at:*

**Email:** [bulletin@abk.ch](mailto:bulletin@abk.ch)  
**Address:** Credit Suisse AG, Bulletin Editorial team, DBG, 8070 Zurich

### Follow us!

- [twitter.com/creditsuisse](https://twitter.com/creditsuisse)
- [facebook.com/creditsuisse](https://facebook.com/creditsuisse)
- [youtube.com/creditsuisse](https://youtube.com/creditsuisse)
- [linkedin.com/company/credit-suisse/](https://linkedin.com/company/credit-suisse/)

### Archive

Back issues of Bulletin are available digitally at [credit-suisse.com/bulletin](https://credit-suisse.com/bulletin)



# Thank You to Credit Suisse on 15 Successful Years of Microfinance and Impact Investing.



As a global nonprofit dedicated to building a financially inclusive world, Accion relies on Credit Suisse's support and leadership to help us harness fintech for good, as well as protect and empower clients.

Credit Suisse's support for Accion Venture Lab helps our seed-stage impact investment initiative which pursues startups that catalyze innovative, disruptive digital technologies. The partnership with the Center for Financial Inclusion at Accion – a convener, community

builder, and financial inclusion thought leader – creates a responsible, respectful industry: the Center's signature initiative, the Smart Campaign – the world's first global consumer protection standard – reaches 82 institutions that serve nearly 40 million clients.

As we strive towards a financial system that works for everyone, we thank you on behalf of our millions of clients and the 3 billion financially underserved that we aspire to reach.

**Publishing details:** published by: Credit Suisse AG; project management: Steven F. Althaus, Mandana Razavi; contributors: Jessica Cunti, Katrin Schaad, Yanik Schubiger, Simon Stauffer; content design, editing: Ammann, Brunner & Krobath AG; design concept, layout, production: Crafft Kommunikation AG; photo editing: Studio Andreas Wellnitz; ad sales: Fachmedien – Zürichsee Werbe AG; pre-press: n c ag; translations: Credit Suisse Language & Translation Services; printer: Stämpfli AG; circulation: 83,000

**Editorial committee:** Oliver Adler, Felix Baumgartner, Gabriela Cotti Musio, Marzio Grassi, Anja Hochberg, Thomas Hürlimann, Antonia König Zuppiger, Carsten Luther, Isabelle Reist, Manuel Rybach, Florence Schnydrig-Moser, Frank T. Schubert, Daniel Stamm, Robert Wagner





# No, This Time Everything Will not Be Different

If history tells us one thing, it is this: Over time, every technological advance has led to greater prosperity and higher rates of employment. Despite digitalization, we're not going to run out of work.

By Tobias Straumann

Trends in overall employment (number of employed persons, in millions, blue) relative to the unemployment rate (in percent, red) in Great Britain from 1855 to 2016.

Source: Bank of England

# A

“Automation is not our enemy. Our enemies are ignorance, indifference and inertia,” said US President Lyndon B. Johnson, addressing his fellow Americans from the Cabinet Room in the White House. “Automation can be the ally of our prosperity if we will just look ahead, if we will understand what is to come, and if we will set our course wisely after planning for the future.” This was his message in August 1964 as he signed a bill creating the National Commission on Technology, Automation and Economic Progress.

President Johnson was responding to concerns about the consequences of automation. A much-quoted article by two young Canadians, physicist and writer John J. Brown and Eric W. Leaver, an inventor of instruments, had alarmed the US public. In 1946, they argued in the business journal *Fortune* that modern technology would soon make it possible to carry out industrial production without the involvement of human workers. In 1961, the weekly news magazine *Time* warned of the danger of mass unemployment: “In the past, new industries hired far more people than those they put out of business. But this is not true of many of today’s new industries.”

### The prophets of doom were wrong

As we know today, it was a false alarm. Only a short time later, fear of what automation might bring had subsided. From the 1960s on, the economy was booming and there was full employment. Global per-capita GDP increased 20-fold between 1965 and 2015.

Fifty years after Johnson’s initiative, however, anxiety about technological change has returned with a vengeance. “You’re fired!” read the title headline of the German news magazine *Der Spiegel*. The subtitle: “How computers and robots are taking away our jobs.” And Jeremy Rifkin, one of the most influential economists in the United States, warned of “the end of work” in a book of that title.

But now it is no longer automation that is causing unease, but digitalization. Are the prophets of doom right this time? It’s quite possible that digitalization will cause a very different kind of disruption from that triggered by automa-

tion. The fact that the doomsayers were wrong last time doesn’t necessarily mean that there is no cause for concern. Yet it is hard to imagine that everything will be different this time. Seen in a historical context, the advent of digital technology is not an unusually disruptive development.

### Factories were much more disruptive

The transition from manual to factory-based production two hundred years ago was a far more profound change; within a matter of decades, it put an end to traditions stretching back thousands of years. It could hardly have been more disruptive. In the mid-19th century, the steamship, the railroads and the telegraph forged connections that brought the global economy together. In relative terms, they did more to bridge what were at that time staggering distances than the mobile telephones, internet and improved shipping containers that have emerged over the last few decades. Automobiles, electricity and eventually air travel became accessible to the mass market in the late 19th and early 20th centuries. They, too, revolutionized both business and society.

One might have expected these major technological breakthroughs of the past to produce mass unemployment. But statistics provide no evidence that this was the case. Data sets from Great Britain, where industrialization began, show that the amount of work performed has grown steadily since 1855. Between 1855 and 2016, the number of jobs increased from 11.25 million to 31.74 million. Moreover, the unemployment rate has been cyclical, rather than showing a long-term upward trend. In 2016 it was approximately 5 percent. Only in rare periods did it reach double digits, and only when there was a severe recession.

### Three reasons for optimism

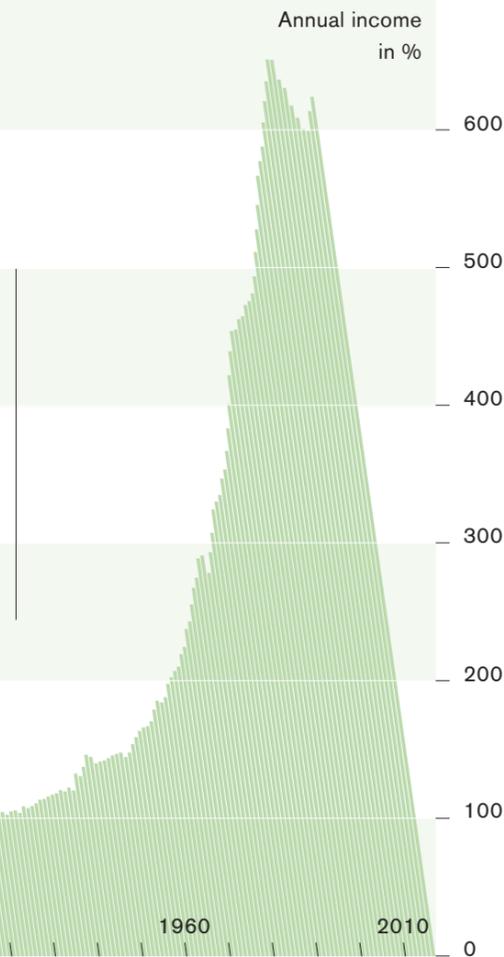
How and why has it been possible to mitigate the disruptive effects of change? A look at the historical evidence reveals three mechanisms:

- First of all, it takes a long time for new technologies to have an impact on other industries. Electricity did not eliminate the use of coal. As recently as the 1970s, coal was still one of the most important energy sources in many OECD countries. Digitalization, too, appears to be a slow process. The computer was invented a long time ago, but its effects are only now showing their full impact in our day-to-day lives. Books and telephones are in no danger of disappearing. On the contrary – more books are being published today than ever before. >

## THE JOBS OF TOMORROW

We can already see today how digitalization and automation are creating the jobs of the future. A photo essay with seven people and their jobs all over the world.

— Second, while technological change has eliminated certain traditional occupations, it has made others more important, at least for a while, thereby creating new job opportunities. As trains became more common, for example, there was an enormous increase in the amount of traffic by horse-drawn vehicle. The declining price of transport from one major center to another resulted in more goods being transported overall, and they still had to make their way to their final destination. Until the invention of the automobile, this required the use of horse-drawn vehicles. The same mechanism is at work today in the spread of e-commerce. The number of truck



deliveries has risen, because the volume of packages shipped has dramatically increased. The online behemoth Amazon has a workforce of 560,000, making it one of the world's largest employers. At least temporarily, this has created a demand for less skilled workers, which has had a compensatory effect.

— Third, wealthy countries have created institutions to help alleviate the negative effects of technological change. At the end of the 19th century, compulsory schooling was introduced in all of the European countries and North America. Unemployment insurance followed in the 20th century. And finally, universal suffrage has ensured that the losers in the process of technological change have a voice. In a democracy, there can be an open debate about new technologies. This increases the likelihood that employees and employers will adjust quickly enough to the new technologies.

### In the short term, some will lose out

There is no question, however, that every technological advance produces short-term losers. Many jobs disappear. These include not only low-skilled positions, but also typical mid-level occupations in fields such as bookkeeping and credit assessment [see article on page 34]. But there is no reason to expect that an abrupt change will trigger massive structural unemployment. Most workers will have sufficient time to find a new occupation, and the rest will have opportunities for retraining.

Most positions that exist today are not in great danger, because the labor-intensive service sector is the source of most jobs. The trend toward service jobs is likely to continue, since the industrial sector is continuing to boost productivity and will be laying off workers. We can also expect that instead of replacing workers, more intelligent machines will make work more productive.

### Real incomes have continued to rise

In the long term, the technological progress of the past 200 years has always boosted both employment and prosperity. As productivity increases, prices drop and wages rise. This results in higher demand for goods and services, which in turn creates more jobs. Increased prosperity creates new needs and eventually new markets. The British data show that disposable annual income, adjusted for inflation, increased 14-fold between 1760 and 2016 – despite industrialization, the introduction of motor vehicles, automation and digitalization.

Structural change may be unrelenting, but we have dealt with it successfully for 200 years. There is no reason to believe that everything will be different this time. □

**Tobias Straumann** is an economic historian who teaches at the universities of Basel and Zurich.



Photo: Jocelyn Tam. Source: Ministry of Industry and Information Technology, 2017

1 E11a Lv, 24, drone pilot

< 1

*Ms. Lv, what do you do?*

I shoot aerial videos for our marketing campaigns, give the development team feedback and teach people how to fly drones.

*What do you love about your job?*

I travel all over the world and film on location in places that I never dared dream of!

*How did you get this job?*

I came across DJI, the world's largest drone manufacturer, at a recruiting event. They invited me to visit their headquarters in Shenzhen. I liked the company culture. My skills and potential were more important than my age, experience or what I studied in school. And Shenzhen is full of young people who are fighting to realize their dreams.

*What else would you like to accomplish?*

I'd like to show even more people what it means to see the world from a new perspective.

*What was your dream job as a kid?*

A teacher, and I ended up becoming one in a way.

*What will you be doing in 20 years?*

Maybe I'll be a freelance aerial photographer, always on the lookout for the world's most beautiful places.

On the job since: 2012

Education: Aircraft operator for low-flying aircraft

2 >

*Mr. Ragavan, what do you do?*  
I deliver food takeout orders.

You can use the Swiggy app to order your favorite food from your favorite restaurant and we will pick it up for you. You can use it to track where I am at any time, like with Uber.

*What do you love about your job?*

The freedom and flexibility – I work when and where I want to. The pay is good and I can earn extra if I do an excellent job.

*How did you get this job?*

I worked for a different delivery service and a friend referred me to Swiggy.

*What else would you like to accomplish?*

I want to be the department manager.

On the job since: 2015

Education: Primary school

Photo: Mahesh Shantaram Source: RedBee, 2016



Bangalore, India



The online food delivery market in India grew by 150% between 2015 and 2016 to USD 300 million, with 160,000 meals delivered daily.

2 Kiran Ragavan, 30, delivery manager

Zurich, Switzerland



Switzerland will experience a shortage of approximately 25,000 IT specialists by 2024.



Photos: Peter Hauser; Damien Maloney Sources: BICT Switzerland Professional Education Association, 2016; qz.com; US Department of Agriculture, 2018

Redwood City, US



US citizens eat, on average, 100 kilograms of red and white meat annually. If that was all in hamburgers, it would add up to 2.4 a day.



< 3

*Ms. Baumgärtner, what do you do?*  
I work on the network team at Credit Suisse on topics like routing, switching, security and service quality – IT stuff, basically. I apply what was learned in a test lab.

*What do you love about your job?*  
In IT, it doesn't matter who has the best solution – I like that.

*What else would you like to accomplish?*  
I want to learn as much as possible to quench my thirst for knowledge a bit. And I want to implement a system that I evaluated in the network.

*How did you get this job?*  
Ever since I was very young, I've been fascinated by computers and wanted to know how everything worked.

*What was your dream job as a kid?*  
Chemist.

*What will you be doing in 20 years?*  
I'd like to be in management by then, preferably at an IT company.

On the job since: 2015  
In training

4 ^

*Mr. Lipman, what do you do?*  
I'm in charge of the development team at Impossible Foods. We produce plant-based hamburgers without animal products. Well over 1,000 restaurants and fast food restaurants sell our burgers, which are really delicious and juicy.

*What do you love about your job?*  
I believe I'm doing something really meaningful by trying to eliminate animals from our food system.

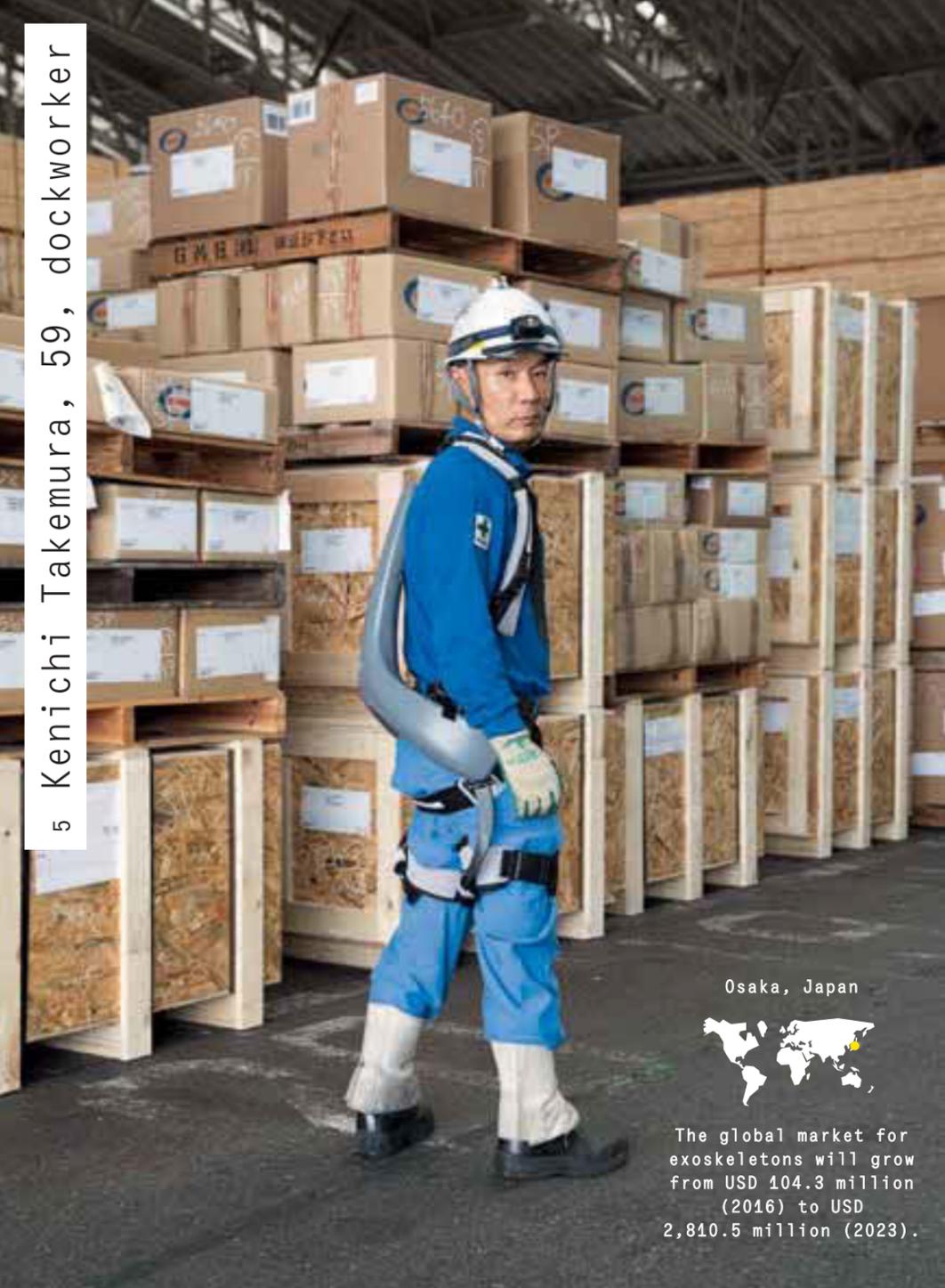
*How did you get this job?*  
Pat Brown, a professor emeritus at Stanford and founder and CEO of Impossible Foods, is an old friend and colleague.

*What else would you like to accomplish?*  
To make more delicious food from plants.

*What was your dream job as a kid?*  
I didn't think about work back then. I just wanted to play.

*What will you be doing in 20 years?*  
Hopefully playing outdoors again with my wife by my side.

On the job since: 2017  
Education: Doctor



Osaka, Japan



The global market for exoskeletons will grow from USD 104.3 million (2016) to USD 2,810.5 million (2023).

< 5

*Mr. Takemura, what do you do?*  
I drive a forklift. We work in intermodal freight transport where goods are transported in containers with different modes of transport – so you often need to unload and reload them.

We're using many new technologies including artificial intelligence and the Internet of Things. I'm wearing an exoskeleton with a portable robot in the photo, which reduces the load on my hips when I lift heavy objects. It has motors and sensors that support my movements.

*What do you love about your job?*  
I like it when everything goes according to plan.

*How did you get this job?*  
My predecessor taught me how to do my job.

On the job since: 1995  
Education: Secondary school

6 >

*Mr. Heilmann, what do you do?*  
It's my job to bridge the language barrier between software developers and other employees in a company.

*What do you love about your job?*  
I have to explain complex new ideas in a simple way and get people excited about engaging with them. That never gets boring.

*How did you get this job?*  
I created the job myself when I was working as a long-suffering head developer with a large software company and saw how much extra work was generated by poor communication.

*What else would you like to accomplish?*  
I want to render myself superfluous at some point. I hope the gap between tech employees and other workers disappears.

*What was your dream job as a kid?*  
Starship captain.

*What will you be doing in 20 years?*  
Running a small café on a beautiful island and playing with technology. And petting every dog that I meet.

On the job since: 2008  
Education: Abitur (general qualification for university admission)

Photos: Morohiko Hasei; Jelka von Langen Sources: marketandmarkets.com; glassdoor.com; indeed.com

Berlin, Germany



There are currently seven positions open for developer evangelists in Berlin; San Francisco has 76.





The global influencer market is estimated at USD 2.38 billion (2019) for Instagram alone. Annual growth rate: 50%.

7 Sibu Mpanza, 23, digital entrepreneur/YouTuber



< 7

*Mr. Mpanza, what do you do?*

I run my own digital marketing company where we collaborate with brands to develop online campaigns for Facebook, Twitter, Instagram and YouTube. And I film, edit and direct videos for my own two YouTube channels.

*What do you love about your job?*

Meeting new people, developing ideas and seeing the end product, since I've often spent months on their conception and design.

*How did you get this job?*

I followed a lot of YouTubers while at university. They made me laugh. I wanted to do that, too.

My first video went live on August 18, 2014. Since then I've worked with over 30 brands worldwide, including Burger King, Takealot and Showmax.

*What else would you like to accomplish?*

My agency should keep growing, of course. And I want to build a network of South African content creators to compete in the global marketplace.

*What was your dream job as a kid?*

I watched advertisements and wanted to make my own. Now I've come full circle.

On the job since: 2014

Education: University  
(incomplete)

# A Renaissance of the Liberal Arts

In the working world of tomorrow, knowledge alone is no longer enough to find happiness. The big question is this: What is the best way to learn humanity and creativity for the digital age?

By Steffan Heuer (text) and Jan Buchezik (illustrations)



Perhaps this dilemma was best expressed in the booklets accompanying toy company Lego's 60th anniversary sets: The headline of the colorful instruction manuals reads "building bigger thinking." The booklet continues, "Did you know that your imagination is bigger than a grown-up's? It's true! You can think of anything, all you need to do is build it." The sets contain hundreds of blocks, but no instructions on how to create a masterpiece from them.

This is, in essence, the freedom to discover something new and with the willingness to break it all down again. Also known as playful creativity – but not to be confused with child's play. Developmental psycholo-

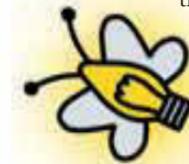
gists, teachers and economists agree that this is the best approach to education and work in the 21st century.

## Learning Humanity

The race between man and machine is well underway, and humans can certainly put a great deal into the balance to ensure that they come out ahead, or at least as equal partners to robots and artificial intelligence. For those who don't want to be left behind, the McKinsey consulting firm recommends that they continue to educate themselves and spend more time on activities requiring social and emotional skills, creativity, higher thinking abilities and other skills that are relatively difficult to automate. But what is the best way to learn humanity and creativity for the digital age?

According to Heather McGowan, an American expert on education, we are in need of a radical new paradigm. "The worst thing for an adult to do is to ask a child what they want to be one day when they grow up," McGowan says. "The world we live in is accelerating. Young people need to be prepared to do 17 different jobs in five different industries over the course of their

lifetimes." It makes no sense to use an educational model that requires a decade to teach a person a set of knowledge and skills and then to let them loose in the labor market. Instead, McGowan emphasized that we should be teaching people HOW to learn with passion rather than WHAT they should learn. "What role do I play in a team, how do I express myself, how do I develop confidence in the true sense of the word, how do I gain a strong understanding of what I can do?"



Anyone with enough inquisitiveness can do any job.

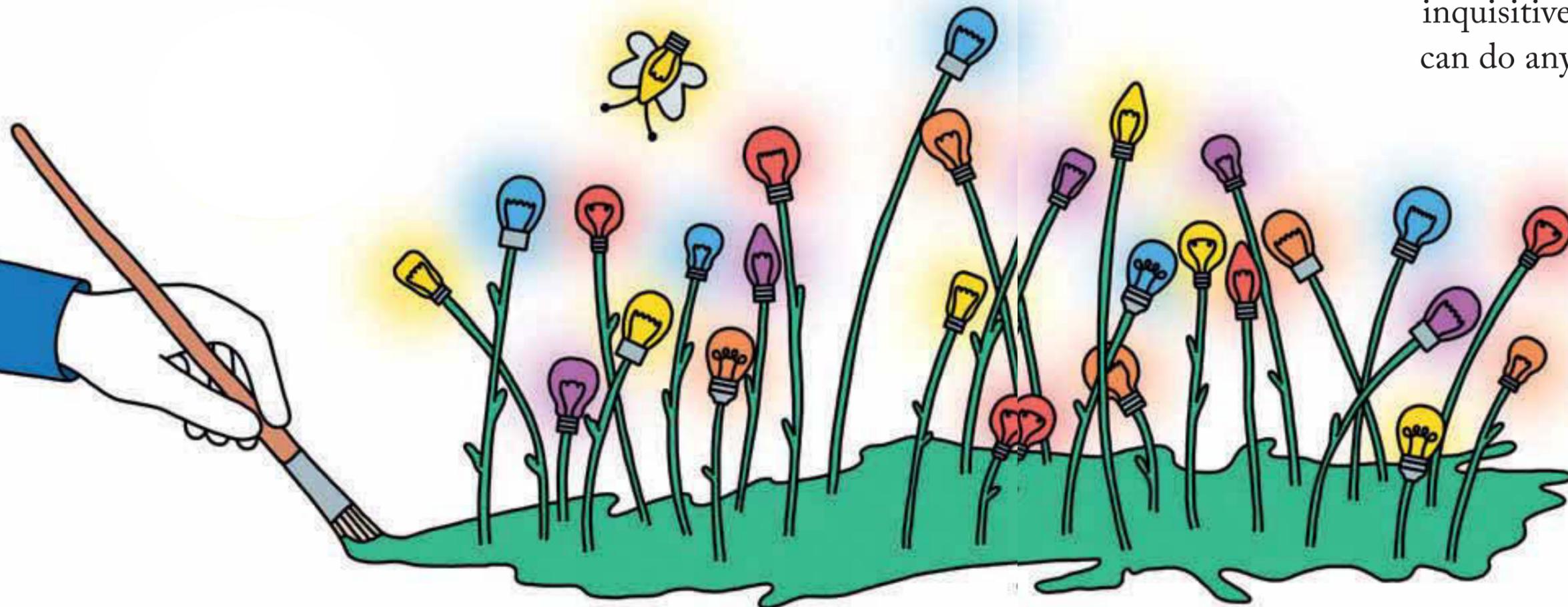
McGowan considers these skills to be prerequisites for a person to find a meaningful place in the automated world. "It doesn't matter whether robots replace 23 percent or 47 percent of all jobs. We need to act like it is 100 percent. Up until now, only one fifth of our economy has been truly digitalized. The real crisis has yet to come." But, according to McGowan, there is still time to prepare from school to career.

## Mental Muscles

The British-US commentator Andrew Keen, a critical observer of the technological revolutions from Silicon Valley, refers to the need to build up mental muscles. "In the digital world, people should remember the thing that makes them human: the intellectual capacity to act. Educational institutions need to teach this rather than conformity and obedience to people and tests."

This shift in perspective, asking lots of questions rather than providing answers, should start on the very first day of school. "Look at pictures children draw on the first day of preschool," says Austrian entrepreneur Ali Mahlodji. "Children draw houses with round windows; they have fantastic ideas. And then an adult comes along and says, 'You can't do that.' They're systematically destroying creative thinking." There is one thing that Ali Mahlodji aims to demonstrate with his video platform Whatchado. Anyone with enough inquisitiveness can do any job.

For Mahlodji, learning creativity means that people need to unlearn entrenched mechanisms dictating how something has to be done – this is equally true for primary school students or managers. "We all start out as inquisitive geniuses >



and are much too quick to trade it in for rules and conventions. There is a good reason why managers struggle with free play," Mahlodji explains. "They have been trained to always want to win."

### Call for Free Expression

Mahlodji's platform represents a call for free expression in opposition to behaving according to standardized norms. Two million visitors meet up on Whatchado every month, sharing about their professions with other young workers. "Creativity emerges from confidence. When viewing these video profiles, people quickly realize that there is a job for them out there, too," Mahlodji says. "Never mind what parents or teachers tell you. Finding work is not about following a recipe – there are many paths to success. That is the key takeaway."

Mahlodji gets inspiration from the international "Schule im Aufbruch" ("Schools in Transformation") initiative headquartered in Berlin. Rather than leave the creative learning culture to pricey private institutions, this movement launched by brain researchers and teachers attempts to apply current methods directly within

The motto is:  
 "Everyone's  
 a teacher.  
 Everyone's a  
 student."



the existing school system. The initiative's founders point out that "every school finds its own implementation approach, at their own speed."

It goes without saying that the high-tech world is another source of inspiration. Many company founders in this area have little patience and are willing to fund experiments. One prominent example is the Khan Lab School in Silicon Valley, named after Sal Khan, the founder of the online learning platform Khan Academy. The motto of this new K-12 private school: "Everyone's a teacher. Everyone's a student."

### Change Is Now the New Normal

At Khan Lab, the goal is self-regulated learning and discovery. Even grades are now called "independence levels." One of the primary learning goals is the ability to ask better questions within a mixed-age group. "We want to create an education platform so that students learn to act and take responsibility, set meaningful goals and take ownership of their own education."

Some secondary education institutions are taking an even broader approach to tackling the concept of open exploration. For instance, Heather McGowan helped two universities on the east coast of the United States revamp their degree programs. Becker College in Worcester, Massachusetts, outside of Boston, has been offering a degree centered around what they term the "agile mindset," and its seminars have focused on creativity and social and emotional intelligence since 2016. The subjects include change as the new normal, exploring unstructured problems, uncovering opportunity in human need and creating and capturing value from all of these changes.

Thomas Jefferson University in Philadelphia is an integrated college combining design, engineering and commerce, where the curriculum reflects an emphasis on holistic thinking and dealing with complexity.

Students here who are studying to become designers or entrepreneurs also learn computer languages, biology, ethics and ethnography.

Ultimately, it was Stanford University, close to Silicon Valley, that served as a model for many educational institutions when it opened its d.school for holistic "design thinking" 15 years ago. Students, faculty and managers can learn how to approach problems clearly and practically and how to handle ambiguous solutions – for instance, by rapidly testing answers and prototypes, and rejecting those that don't work. A stark contrast to the traditional education model.

### Wanted: Inquisitive Minds

Models like these show that, ironically, these universities are once again approaching the old-fashioned notion of a comprehensive liberal arts education. Rather than shaping young people to fit a certain career, the liberal arts are intended to expand a person's horizons and promote critical thinking.

More and more companies, even on Wall Street, are searching for just such inquisitive minds. Participants in finance conference in New York were recently taken by surprise when the Chief Talent Officer of asset management giant BlackRock announced that his company would be hiring more liberal arts majors to join its around 13,000 employees.

When machines are responsible for developing investment strategies and managing portfolios, unstructured "Lego" thinking takes on a more critical role than ever – ensuring a colorful array of options and interpersonal skills. □



**Steffan Heuer** is a technology journalist and a US correspondent for the business magazine "brand eins." He lives in San Francisco.

# Dream Job: Online Gamer

What should young people do to prepare for the labor market of the future? What occupations will be in demand? Vocational counselor Alexandra Petrovitch talks about her experience advising young people.

By Simon Brunner



**Alexandra Petrovitch**, 55, is a psychologist and vocational counselor. She is the director of the "Centre d'orientation scolaire et professionnelle Venoge," a career center in the canton of Vaud. Her colleague Anne-Christine Zwissig contributed to this interview.

### How have young people's dream jobs changed over the decades?

Today I'm sometimes asked how you can become an online gamer. Computers and new media are very popular fields right now, but there is also still great interest in working with children, creative trades and animal care.

### The common stereotype of millennials is that they are self-indulgent and very demanding. Has that been your experience?

When you interact with them individually and show interest in them and their careers, students are very congenial. They want to learn more about opportunities and the job market. In that respect they don't seem to be much different from the young people I knew ten or twenty years ago.

### Are they well prepared for the new labor market?

They are used to constant change, much more so than earlier generations. That's important, since they need to be far more flexible than their parents – given how rapidly the working world is changing.

### What skills are currently especially important?

The nature of work itself has changed. In the past, it was all about the ability to

solve problems as well as possible, which led to an emphasis on intellectual competence. Now there is more demand for creativity. [See accompanying article.] Generally speaking, people need to acquire skills that will allow them to work in a variety of fields – they need life skills. And now, as in the past, they need the ability to evaluate their own skills, and they need an awareness of their interests, characteristics and resources – this is the only way to find a field that is a good fit.

### What does that mean for each individual?

Permanent jobs are increasingly rare. Long-term ties to one company are becoming a thing of the past; instead, we are seeing the rise of nomadic careers. This means that individuals must take responsibility for acquiring the skills they need. Their relationships with employers are like those of a service provider, so they have to fend for themselves.

### What is the most important advice you have for young people?

It hasn't changed over the years. It's simple: Stay curious and discover the professional world for yourselves! □

# “Our striving for something greater”

*“How can we retain the human dimension in a work environment  
with more and more robots?”*  
Jumia call center, the “Amazon of Kenya,” in Nairobi.



Almost 200 million people are looking for work worldwide, while automation sows fear of stagnating wages and disappearing jobs. A conversation with Guy Ryder, Director General of the International Labour Organization (ILO), about work and world peace, the green economy, and his rejection of a universal guaranteed income.

By Manuel Rybach

# W

*“Work gives you meaning and purpose,” according to Stephen Hawking. Sigmund Freud supposedly said that a fulfilling life consists of work and love. Why is work so important for humankind, beyond the mere remuneration?*

Work has a crucial social function beyond just meeting material needs. Work must certainly meet material needs, but it must

also respond to an individual’s quest for personal development and the instinctive desire to contribute to something larger than one’s own or one’s family’s welfare. The ILO’s Declaration of Philadelphia – adopted in 1944 – refers to the need to act to ensure that workers “can have the satisfaction of giving the fullest measure of their skill and attainments and make their greatest contribution to the common well-being.”

*According to historian Yuval Noah Harari, gatherers and hunters worked only a couple of hours a day. With today’s digitization, in contrast, we are in danger of working around the clock. Is the history of human evolution actually a big decline in quality of life?*

*“We could create 24 million jobs globally by 2030 simply by promoting a green economy.”*  
Siemens Wind Power Plant in the North Sea.

How does Harari know that they only worked a couple of hours a day? They may have spent days running after the deer without finding it ... and Harari also acknowledges that in his book later on: quality of life and wellbeing have reached unforeseen levels because of the great technological progress that has taken place in the past few generations. Meanwhile, technology is making a great part of human labor redundant. Harari says ... I see this kind of prediction less as a prophecy and more a way of discussing our present choices. If the discussion makes us choose differently, so that the prediction is proven wrong, all the better.

*Next year, the ILO celebrates its 100th birthday. Many of its original goals,*

*like the 40-hour work week have been achieved – why is the ILO still needed today?* Key times of change, for better or worse, have followed war, economic turmoil or political crisis. We may again be entering such a period, and how the ILO responds will surely make a difference to whether the global economy meets our goals for rights, jobs and security.

*The ILO and the League of Nations were founded together after World War I as an integral part of the peace process. The drive to create the ILO came from the urgent need to improve the appalling working conditions faced by many in the early decades after the Industrial Revolution ...* and with great success. Since 1919 there have been important changes in attitudes to work and in policies aimed at improving its quality. These changes have conditioned the ILO’s work and its impact in both industrialized and developing countries. In recent crises and their aftermath, ILO issues were central. If new formulations of international social justice, new ethical rules and new policy instruments emerge to guide the world economy and labor markets, the ILO’s goals must be at their heart.

*One of the key features of the ILO is its approach of bringing together governments, labor unions and employer federations. Is this model here to stay or will it be challenged by changes in the nature of work?* At a time marked in many countries by increasing job insecurity, wage stagnation and new challenges from automation and the digital revolution, constructive labor relations are more important than ever. Through dialogue, governments, employers and workers play a crucial role

in shaping a future of work that leaves no one behind. They can jointly decide what new technologies to adopt and how. They can contribute to managing transitions for displaced workers, help anticipate skills’ needs, develop education and training programs, and manage enterprise restructuring.

*Two hundred million people don’t have work today. Meanwhile, full employment by 2030 is one of the UN’s sustainability goals, which requires 600 million new jobs in the next ten years, according to the ILO’s development agenda. How could that be possible?* That is a real challenge, making them green and decent is probably an even greater challenge. We are facing the twin challenge of repairing the damage caused by the global economic crisis and creating quality jobs for the tens of millions of new, young labor market entrants every year. Job creation will rely heavily on a healthy environment and the services that it provides.

*What does this mean specifically?* 24 million new jobs could be created globally by 2030 if the right policies to promote a greener economy are put in place. Service sector jobs will be the main driver of future employment growth, while agriculture and manufacturing employment continue to decline. Strong policy efforts must be undertaken here to boost job quality and productivity in the service sector.

*What are the main obstacles to getting there?* Imbalances persist between skills offered and skills needed. While a few countries integrate environmental sustainability and

skills policies, others have not developed or utilized their skills institutions to prepare for the green transition. To ensure a just transition to a green economy, the ILO recommends developing a legal framework and also dealing with social issues and decent working conditions in green sectors.

*What does that mean?* Public voice and participation in decision-making must be ensured when environmental and climate change policies affect the world of work, and they must protect workers who are forced from their homes and across borders as a result of climate change and natural disasters. Workers and their families affected by climate change need social protection. The need for social protection systems will increase as temperatures increase, precipitation patterns change, and natural disasters become more common and intense.

*The ILO received the Nobel Peace Prize in 1969 because of its role in promoting peace through work. If there is less work in the future, do you expect an increase in social upheaval, especially if there is a high number of unemployed young people?* Youth unemployment is a major challenge, at least in the global south. We will have to integrate hundreds of millions of young people into the labor market. If we fail to act in light of this crisis, we will be destroying hopes for sustainable growth – and sowing the seeds of deeper social unrest in the world. Creating decent work opportunities, particularly for youth, will be essential to build lasting peace in countries emerging from conflict, crisis and disaster. >



**Guy Ryder**, 62, has served as Director General of the International Labor Organization (ILO) since 2012. Originally from the United Kingdom, he has strengthened the role of the ILO in the G20 process, in cooperation with BRICS countries and with the G7+. The ILO has also launched new initiatives with the World Bank and advanced the agenda for humane working conditions. Ryder, who studied social and political science, has 35 years of experience in the world of labor and held the position of General Secretary of the International Trade Union Federation, among others.

## At the same time, cognitive skills, soft skills and creativity will gain more prominence.

*In Japan, many people embrace new technologies, such as robots, and perceive them as problem solvers – why are people in many other countries rather skeptical?* Understandably, workers are afraid of losing their jobs and government and the social partners are looking for ideas to create a safety net for people who will lose jobs to automation. Another issue here is to what extent robots can replace care workers in hospitals, old people's homes, etc. But I am sure that we can find a balance here: relieving care workers from the most arduous tasks may allow more

time for human compassion in these institutions. Countries like Japan and Germany have aging societies: the dwindling numbers of new entrants on the labor market calls for innovative solutions, including robots replacing human beings.

*You like to emphasize that technology is neither good nor bad but needs to be managed. How?*

The digital economy must be a sustainable one and it must be built on decent work which gives humans dignity. The question here is how we can keep the human dimension in a world of work run more and more by robots. Globally, one third of employers surveyed complain of not being able to find the right skill sets to fill existing vacancies. There is the simple truth that the machines were and continue to be built by human brain and brawn. We need to anticipate upcoming technological changes and tackle the education and skills mismatch in labor markets. Adequate education and skills for countries at all development levels increase their ability to innovate and adopt new technologies. It means the difference between growth that leaves large segments of society behind and inclusive growth with a well-trained workforce willing to learn.

*While in past industrial revolutions mostly blue-collar workers were affected, the current automatization revolution affects especially white-collar workers. What are the political and societal implications?*

In contrast with previous disruptions, these include white-collar as well as blue-collar jobs. As some of the defining tasks of jobs are automated, certain jobs, such as those requiring repeated actions, will be lost. Work that is difficult to automate will gain more prominence for human labor, for example, complex tasks

relying on high-level cognitive skills, soft skills and creativity. Policies in response to this transformation should be guided by new empirical analysis. We have set up a Global Commission on the Future of Work that is expected to come up with recommendations by early 2019. I do not want to anticipate the latter but guiding principles should be rights-based, consensual and founded on global solidarity and global governance.

*What policies could help to overcome the pay gap between men and women?*

A smart mix of legal provisions, fair workplace practices and public awareness is crucial in tackling the gender pay gap. While the gender pay gap has narrowed in most countries there is still a striking variation in women's relative pay, varying from close to zero to up to 45 percent. Women's greater investment in education, as well as some shifts in cultural attitudes, have not removed major obstacles to progress, and the pervasive harassment and violence that have come to light demonstrate how much progress remains to be done.

*Despite increasing digitization, a lot of Western countries show no increase in productivity. Why is that?*

One reason for slower productivity growth is the long-term consequences of the financial crisis that led to a significant restructuring of the banking sector and a decrease in more risky investments following stricter oversight. In addition, productivity growth has also suffered from a decline in entrepreneurial activity, partly as a result of population aging that limits the appetite of societies for investing in new, innovative processes and products. Finally, technological change often has difficulties in being adopted by



*"Routine, repetitive and physical jobs and routine tasks requiring repeated actions will disappear." At the CaliBurger Restaurant in Pasadena, California, a robot flips hamburger patties and cleans the hot grill.*

a larger part of the economy, widening the gap between leading companies and the rest. This has contributed to stifled competition, thereby further limiting productivity growth.

*Universal guaranteed income has been proposed as a response to the digital revolution. You don't think much of it.*

The universal basic income debate is very interesting but we should be very conscious that this is an absolutely era-changing decision: admitting that we can't do it through work any longer. Most of us come from traditions, from cultures, from belief patterns which basically say we shall earn our living by the sweat of our brow or the strain on the brain. And the notion that that basic foundation is replaced by the fact that you just get an income for existing, I think is something which is extremely difficult for most people to get their head around.

There is a moral panic attached to it. We really must not forget the social component in our discussion of the future of work. Freud called work the individual's connection to reality. And it's not a bad way of looking at things.

*How will digitization impact migration – when work becomes more mobile and flexible?*

Digitization can impact migration in multiple ways as it helps to identify job openings in other countries, increases transparency of recruitment practices, and make migration safe, orderly and regular. Technology can also make remittance channels more accessible to migrants. At the same time, technological progress has also enabled significant changes in employment, not only making skilled occupations more accessible on a global scale, but also creating significant job opportunities at home and hence a

potential alternative to migration. These transformations could have a significant impact on the future of work.

*Karl Marx foresaw a fully automated world with a large proletariat. In the long run, is Marx right?*

The future of work is not decided for us in advance. It is not, as Shakespeare said, "written in the stars." It's not going to be determined by technology or globalization. It is a future that we must make according to the values and the preferences that we choose as societies and through the policies that we design and implement. □

**Manuel Rybach** is the Global Head of Public Affairs and Policy at Credit Suisse.





# “Have the courage to do what you enjoy”

Peter Goerke is responsible for more than 46,000 employees from 170 nations. In the following interview, Credit Suisse’s Chief Human Resources Officer discusses the importance of diversity and talent as a competitive advantage, as well as the questions to ask in a job interview.

Daniel Ammann and Simon Brunner (interview) and Yves Bachmann (photos)

*Mr. Goerke, what was your dream job when you were a child?*

I was born in the 1960s. The first moon landing took place in 1969 and I was fascinated to watch the black and white television images of Neil Armstrong walking on the moon. Like many other children at the time, I wanted to become an astronaut.

*What was the most important thing you learned at school?*

Not much (*laughs*). With the education system that existed at the time, children were expected to learn vast amounts of information by heart. However, teaching children how to learn and to solve a problem is much more important. Today, this approach is more widespread since knowledge – meaning facts and figures – is now universally available.

*You have been working in the area of human resources (HR) for around 20 years.*

*What do you find so fascinating about this particular field?*

My work is first and foremost about people – and I see it both as a great privilege and a huge responsibility. As a result of technological developments, more and more repetitive elements of our work are being automated. This means

that the human factor is becoming more crucial, since we are left with the most complex and challenging tasks. People are becoming increasingly important – they make all the difference.

*How is this trend transforming the HR approach of companies?*

In the past, the work of HR departments mainly consisted of operational and administrative tasks – such as managing payroll and the annual employee appraisal and promotion processes. Those processes now require fewer resources, allowing us to focus more on strategic activities. Identifying, attracting and further developing the best talents in the world is a key part of our role in HR. This can give us a clear competitive advantage: If a company has the best talents, this has an impact on its success – and if it doesn’t, its results suffer.

*Who are your main competitors today in the battle for the smartest minds?*

You have to distinguish here between university graduates and employees with professional experience. In the case of graduates, every attractive company is basically a rival. If we are talking about experienced employees, we mainly compete with firms in the finance >

**Peter Goerke**, aged 56, is Chief Human Resources Officer and a Member of the Executive Board of Credit Suisse Group. He previously held the same function at Prudential plc and Zurich Insurance Group and he also worked for McKinsey & Co. and Egon Zehnder International. Peter Goerke studied Economics at the University of St. Gallen. He is married and has a daughter.

industry. Technology and IT are of critical importance for our company. In those areas, we are looking for the same type of professionals as the frequently cited FAANGs [editor's note: Facebook, Apple, Amazon, Netflix, Google.]

**How do you compete successfully with them?**  
A core principle of HR has always been: You have to go where the talent is. This means that Credit Suisse visits leading universities and recruitment events. It is crucial for our company to have a clear profile and to be able to communicate exactly what we stand for and what people can expect from us. The Internet is also growing more and more important in this area. Social media platforms are not only a source of the latest news about Credit Suisse – they also facilitate an intensive dialogue with potential employees. And as a basic principle: It is, of course, very helpful if the company is successful. After all, the best talents want to be part of a successful team.

**Just how important is compensation?**  
It is part of a long list of factors that determine the attractiveness of a company. Others include: What position is available and which responsibilities and development potential does it offer? How good is the firm's reputation and what type of management does it have? Does the company operate on the basis of performance? Does it have the right corporate culture? Do employees have a good work/life balance? The list goes on. Compensation is important, of course – but based on experience, I would say it is not the most important factor.

**Really?**  
Employees who feel motivated and satisfied are usually very successful, rise through the ranks and consequently also see their pay increase. If you simply earn a good salary but feel dissatisfied and unmotivated, you will not be happy in your position over the long term. In the course of my own career, I have occasionally taken a pay cut in order to accept an interesting position – and



over the longer term, that always proved to be the right approach.

**People say that attracting talent is difficult – and retaining it even more so.**  
Both are challenging. Top talents always have attractive alternatives available to them. They often leave a company if they feel there is a discrepancy between what they were promised when they were hired and the everyday reality. These days, everyone talks to everyone – especially through social media. There is no hiding the truth – and I see that as an advantage. The same applies in reverse: If you can retain good people, you can then attract further talents.

**On the topic of new media: You don't have a LinkedIn profile. In other words: You are not part of the world's largest HR platform.**  
(laughs) I had a LinkedIn profile but I simply received too many messages. Naturally, I still follow overall developments in this area.

**The Global Shapers Survey published by the WEF and the Youth Barometer published by Credit Suisse show that**

## Diversity fosters better decision-making and leads to more creative, less extreme solutions.

**millennials consider it very important to do meaningful work.**

We have also witnessed that trend. The meaningfulness of work is an absolutely key factor. This is positive from a company perspective: Employees who enjoy their work perform it more effectively. Employment research has produced the following basic formula: Performance is the product of commitment multiplied by expertise multiplied by the importance or meaningfulness of work. Even if only one of these factors is zero, overall performance will also be zero. In the end, companies and employees have to strike a good balance between these criteria.

**Studies suggest that on average, millennials will have around 15 different jobs in the course of their careers. Do you see this number of roles as an advantage or a disadvantage?**

I think it is neither. In my opinion, the important thing in any job is to have a lasting impact. It is difficult to generalize but I believe that in order to really learn something and have an impact, you need to perform a role for three to five years. Our working lives tend to last around 40 years, meaning that by the time people retire, they have had around ten different roles. I think that is quite a large number and would recommend fewer.

**How many companies have you worked for? (counting)** Fortunately, I have followed my own advice – I have had six different jobs and I am now 56 years old.

**What makes a good job application?**  
Globally, we receive over 400,000 applications each year. In order to stand out from the crowd, applications need to be precisely worded and tailored to the position in question and to our company. As soon as applications are recycled and sound generic, they lose their impact.

**Hand on heart – does anyone actually read the motivation letters sent with job applications?**

I have certainly read them and will continue to do so in the future.

**Why?**

Because the way a person writes tells you a lot about them: How do they see themselves? Can they express themselves clearly and precisely? Can they distinguish between what is and is not important? What information do they include and what do they leave out? Motivation letters also serve as a good starting point for interviews.

**Nowadays, there is a range of technical tools that can assist in the processing of applications. Which do you use?**

We use scientifically proven evaluation methods for certain positions such as relationship managers or management roles. They involve interviews, simulations or psychometric tests. Our experience of using these methods has been very positive.

**If everything is automated and anonymized, what role do soft factors such as intuition, 'wave length' and 'chemistry' still have to play?**

I believe they play a key role. Skills can be acquired but when it comes to the right chemistry, you either have it or you don't. The important thing is to always understand your own bias and to not simply hire people who are as similar to you as possible. Diversity fosters better decision-making and leads to more creative, less extreme solutions, as many studies have shown.

**You have conducted a large number of interviews during your career. How do you discover more about a candidate's personality during an interview?**

The way people see themselves and rate their abilities is very important. That is why I ask questions that lead in that direction, such as: How would you describe yourself? How would your best friend describe you? What are your hobbies? I get suspicious if they only give me 'superhero' answers. Nowadays, people work in teams almost all the time – and they achieve success together. That can prove difficult for 'lone wolves'.

**Credit Suisse has more than 46,000 employees from 170 nations. What is the most**

**difficult aspect of managing a workforce with such a diverse range of cultures?**

It is of the utmost importance that we respect these differences – as I said: Diversity leads to better results. At the same time, we have to create a global framework and principles and rules that apply to everyone.

**Credit Suisse studies<sup>1,2</sup> show that women represent a large body of unexploited potential and that companies with more female managers generate higher returns and profits. How can you increase the proportion of women in management roles?**

The advancement of women is a priority for all major companies – naturally, that includes Credit Suisse. I take the view that it is very important to report regularly and transparently on the measures taken in this area, for example, as well as on our progress and aspirations. We need to remain focused on this topic.

**How far have you come?**

Companies need to be more flexible and to provide part-time positions or job-sharing, as well as programs to help employees return to work after a period of absence. Our 'Real Returns' program has proved very successful, for example. There is also a need to have convincing role models. I think we are on the right track and that if we take stock of where we stand a few years from now, we will see we have achieved further significant progress.

**What career advice would you offer a young person?**

First: Have the courage to do something you enjoy. Second: Remember that it is all about people. Work with people you respect and who support each other and treat you fairly. □

1 "The CS Gender 3000: The Reward for Change" [credit-suisse.com/gender3000](http://credit-suisse.com/gender3000)

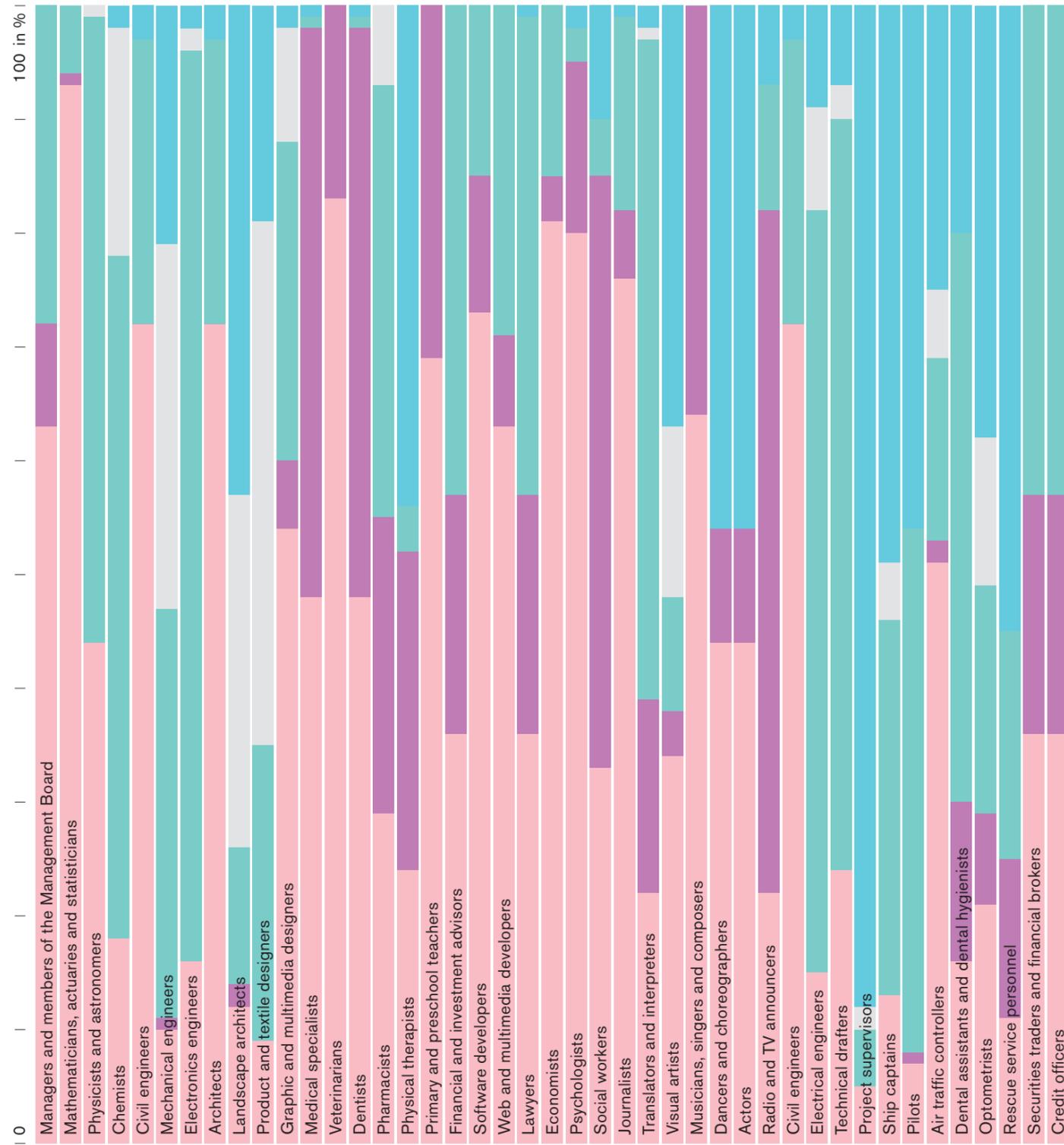
2 "Hidden reserve of the labor market is likely to remain hidden" [credit-suisse.com/monitorswitzerland](http://credit-suisse.com/monitorswitzerland)

**EXPLANATION**

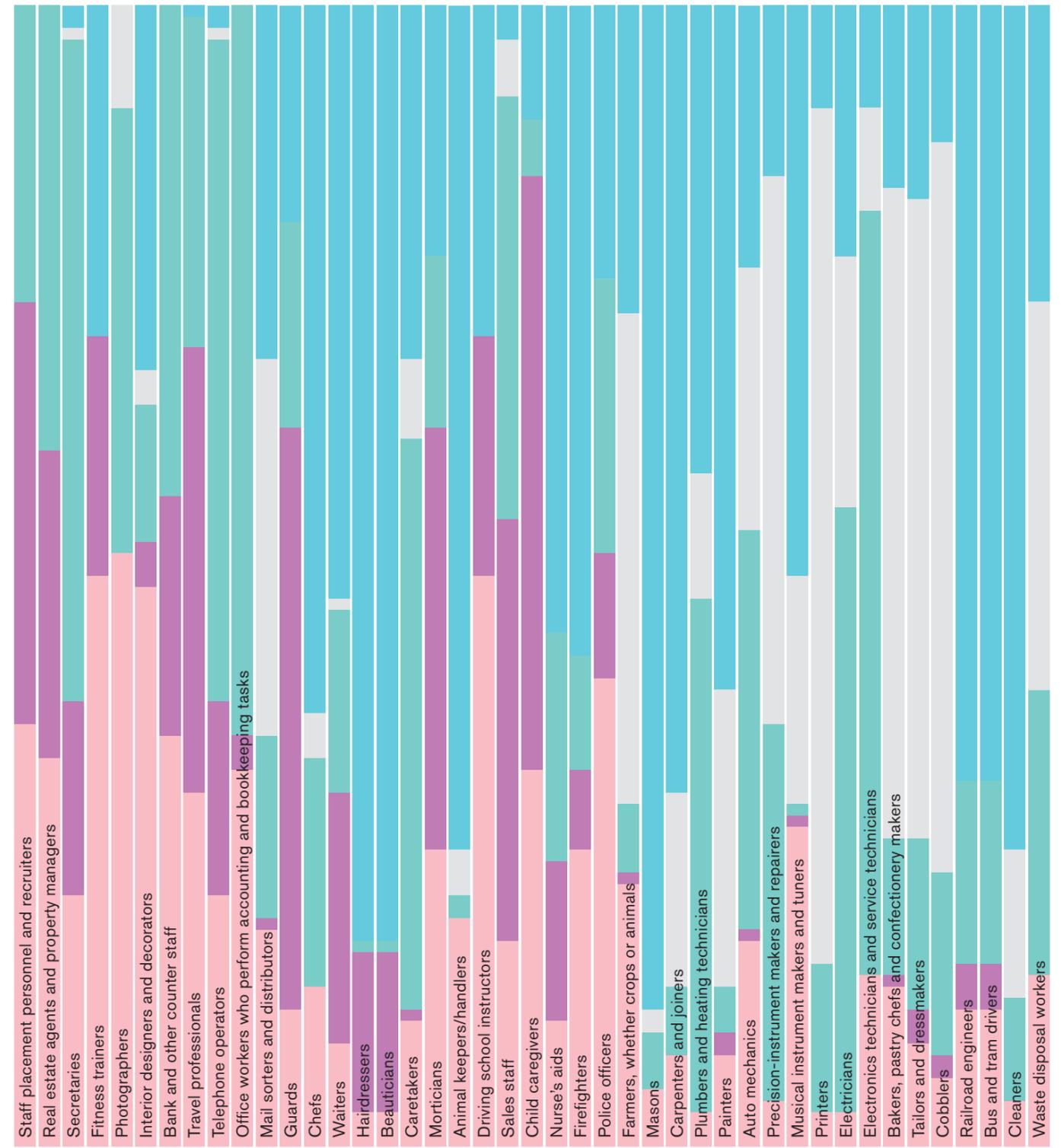
Categorization of professions based on five activity types (individual activity types as a share of all activities)

- **Analytical non-routine activities**  
Researching, analyzing, evaluating, planning, interpreting
- **Interactive non-routine activities**  
Negotiating, representing interests, coordinating, organizing, teaching, training, acquiring, maintaining, presenting, and cultivating clients, serving guests
- **Cognitive routine activities\***  
Calculating, accounting, correcting texts/data, quantifying
- **Manual routine activities\***  
Operating or outfitting machinery, controlling, sorting
- **Manual non-routine activities**  
Repairing or renovating, restoring, cleaning, dancing, rescuing

\*automation potential  
Source: Credit Suisse Institute for Employment Research



# Professions and Their Potential for Automation



# “Just ask



# a ten-year-old what a fax is”

Photo: Ringier AG

## The Future is Already Here: How Automation Will Affect Swiss Professions.

By Sara Carnazzi Weber

There is no doubt about it: Advances in information technology, artificial intelligence and robotics will have far-reaching implications for the world of work. People are once again competing with machines, and this time around it's no longer just a question of brute strength, but also increasingly one of brain power.

The extent and speed at which jobs will disappear is difficult to predict at the moment. However, a look at the specific activities involved in various professions does provide some clues. This is because these activities determine whether a profession is vulnerable to automation. One of the key aspects here is the “routine intensity” of an

systems can use to constantly improve through experience.

### People still want to chat with their hairdresser

Professions that involve a lot of routine are not simply those that are low-skill. Many skilled professions require not only specialist knowledge, but also analysis and decision-making skills that can now be digitized and automated. At first glance, it may seem paradoxical: Typical middle management professions, such as those that involve bookkeeping, credit checks or analyzing X-ray images, are therefore more susceptible than simple manual activities.

share of professions that are primarily made up of analytical, non-routine tasks has increased from 22 percent to 31 percent. Not all cantons are equally affected by automation trends, reflecting differences in sector structure (see chart).

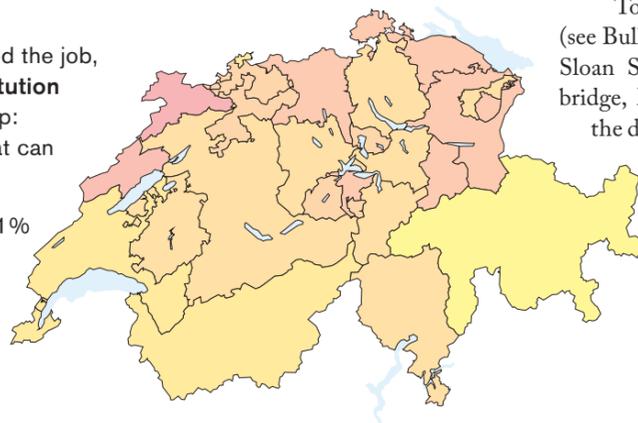
The more industrial jobs a canton has, the higher, on average, the substitution potential. At the current pace of technological change, there are signs that future activities that were previously considered non-routine will increasingly become routine. One good example of this is presented by the efforts to mass produce self-driving trucks and the requirements for testing the use of such vehicles.

But a high level of automatability does not mean that people will be replaced by machines. The economic feasibility of such an investment plays a role, along with legal and ethical issues. The relative costs of labor and capital are crucial. And, last but not least, new technologies can also lead to other types of work in new areas.

To paraphrase Erik Brynjolfsson (see Bulletin 1/16), a professor at the MIT Sloan School of Management in Cambridge, Massachusetts, and an expert on the digital economy: We need to learn to run with the machines, not against them. □

The more highly skilled the job, the higher the **substitution potential**. On the map: Share of activities that can be automated.

35% | | 41%



activity. Routine activities are those that can be programmed easily enough that they can be performed by computers, robots, or algorithms.

In particular, recent progress in the area of artificial intelligence is opening up new opportunities in this respect. While in the past, machines were only able to carry out routine manual tasks, now they can also perform certain cognitive work because of their ability to learn. Due to the enormous expansion of cheap computing power and the digitization of business processes, there is now a wealth of data that self-learning

The latter often involve manual but interactive or otherwise non-repetitive tasks which cannot readily be replaced by digital technology.

So while robots have now taken over auditing work, it is still possible to chat with your hairdresser at the salon. Looking at the Swiss professional landscape, this shift toward analytical, non-routine tasks can already be seen. Since the turn of the millennium, the share of professions that largely involve a routine activity has fallen from 47 percent to 37 percent. Conversely, the

**Sara Carnazzi Weber** is head of Swiss Sector and Regional Analysis at Credit Suisse.

Switzerland is well-positioned digitally, but cannot rest on its laurels. Marc Walder, CEO of Ringier and father of the “digital-switzerland” initiative, explains why there is so much still to be done.

By Simon Brunner

*You're considered a digital thought leader in Switzerland and were recognized last year by the World Economic Forum with the prestigious Transformer Award. How would you explain digitization to a child?*

You don't actually need to do that anymore. For kids, digitization is just a given these days, omnipresent. It's simply there. That's all they know, and they're growing into the learning curve. Just ask a ten-year-old sometime what a DVD, a CD or a fax is. Or try to explain that people used to carry roadmaps in their car so they could find their way. Or that there were plenty of things that people couldn't just do on their smartphones, like listen to music, buy tickets, find places or restaurants, send photos back and forth ... and so on. In fact, children are showing us adults how people will soon be interacting with their smartphones. >

*How?*

Not with your finger anymore.

*But rather...?*

By talking to our smartphones. We'll ask it: "When is the next train to Burgdorf leaving?" Or: "What will the weather be like in Chur tomorrow?" Or: "Please reserve a table for two at Capri Restaurant in Zurich at 7 p.m."

*When and how did you realize that the internet would shake the media industry from the ground up?*

I first realized it from the analyses done by Nicholas Negroponte, a well-known US computer science professor at MIT and thought leader of our information society. He was already examining the consequences for communication and the media world over 20 years ago: "Wholly new content will emerge from being digital, as will new players, new economic models and a likely cottage industry of information and entertainment providers." He was right straight across the board. Much of what he predicted about the future of communication in his 1995 bestseller, "Being Digital," has long since come to pass.

*What were the most important consequences that you drew from his work?*

Our publishing house has invested almost CHF 2 billion over the last ten years in diversification and digitization. The Ringier Group's digital business models already account for 66 percent of its operating profits and 42 percent of sales.

## No, I don't fear the consequences of digitization. If anything, I fear we may not be fast enough.

Just six years ago, the digital portion was zero. The digital contribution to profits is a crucial indicator of a media company's future viability. At 66 percent, Ringier ranks as a leading media company in Europe with regard to digitization. And we're continuing to grow our digital revenues.

*And the journalism?*

We've moved away in recent years from the traditional business areas for a publishing company toward more lucrative digital businesses and are active in a variety of industries – journalism, e-commerce, online marketplaces, sports marketing, ticketing and radio. That's challenging. But it's the right path for an innovative media company to be prepared for the future. If we still depended on journalism for more than 50 percent of our business, I couldn't sleep well at night. The journalism business model is just too uncertain for me.

*Nevertheless, the Ringier publishing portfolio still has more than 130 publications in 18 countries.*

Yes – and we aren't hanging on to these journalistic publications for nostalgic reasons, but because we're firmly convinced that journalism can still be a business model. Even though we know that it currently is no longer a secure one.

*Many companies are currently trying to digitize. Where did you experience the greatest resistance in this transformation process?*

**Marc Walder**, 53, is CEO and shareholder of Ringier AG as well as a founder of the "digitalswitzerland" business hub initiative. Prior positions include editor-in-chief of Schweizer Illustrierte and SonntagsBlick magazines, and eight years playing as a professional tennis player on the ATP Tour. Walder is married, has two daughters and lives near Zurich.

It's always the same things. First you try to protect the existing business, to defend it. That makes you lose a few valuable years, if not crucial ones. And you miss out on the first phase of the learning curve, which is: You don't bring in new, aggressive experts on the new model at the company right away. Instead, you defend the old one. If it isn't already too late, then the shareholders enter the game. We're extremely well-positioned here at Ringier. The Ringier family is enormously agile, entrepreneurial, future-oriented and thoroughly prepared to take risks. That's the only way we were able to transform so much so quickly. In the end, the success is thanks to the shareholders.

*Is Switzerland as a business hub ready for the digital transformation?*

Switzerland has all the prerequisites to not only stay competitive in the race for the digital future, but to actively shape it as well. We're just one example of this. Our AI-based data and technology platform has been recognized with several international awards, which makes us proud.

*What is your optimism based on?*

Switzerland is top of the world in many key factors. A variety of rankings confirm this claim: Switzerland was ranked first in the World Economic Forum's Global Competitiveness Report as well as the Global Innovation Index. According to the World Digital Competitiveness Yearbook put out by Lausanne's IMD Business School, Switzerland has improved its position in the country ranking from eighth to fifth place. These results are encouraging, but they don't mean that we can rest on our laurels. Quite the opposite.

*What are you thinking of?*

In the Digital Manifesto for Switzerland that was drafted by 50 Swiss digital experts, we call for more support from the government to achieve the goals that we set for ourselves with "digital-switzerland."\* About 2 billion Swiss francs are needed for research. We see this – in addition to regulation – as a fundamental

responsibility of the government to further Switzerland as a location. With the ETH and EPFL, Switzerland has two of the leading educational institutions worldwide in the area of technology. These need to be supported by the government because they in turn fuel progress in our companies, both big and small.

*You are considered the father of "digitalswitzerland." What has one of the biggest business hub initiatives that Switzerland has ever seen achieved to date?*

First of all, we've managed to unite business and research – and government to a certain extent – behind a single objective: to strengthen Switzerland as a digital business location for the long term and make it a leader in Europe. We have a variety of projects and commitments. Some of those we initiated ourselves and we support others, providing momentum and impetus. I'm especially proud of the Digital Day 2017 event, the first of its kind in Europe. Hundreds of thousands of Swiss people were able to experience the topic of digitization – young and old, big and small. The second event will take place on October 25, 2018.

*Which countries do you consider role models for Switzerland?*

You shouldn't always look only at the US simply because the biggest tech giants like Google, Amazon and Facebook are there. China is one of the fastest-growing countries with regard to digitization. Estonia has also undergone extensive digitization, especially in the public sector, such as schools and government agencies. For example, the country has introduced machine-readable digital identity cards for all residents.

*In spite of all this enthusiasm for progress, do you sometimes fear the consequences of the digital transformation?*

No, I don't fear the consequences. If anything, I fear that we may not be aware enough or fast enough. The challenge is to recognize the signs of our times without coming under pressure.

*What advice do you give your two daughters about the future?*

My advice is: "Stay curious and constantly adapt to new abilities and knowledge." But that doesn't just apply to children. It applies to all of us. 65 percent of children will hold a job someday that doesn't even exist right now. □

\*"digitalswitzerland" is a business location initiative that promotes the digital transformation of Switzerland. More than 100 leading companies and organizations from the business community and government support this initiative. Credit Suisse is also a member.

# My

# First Job

We all have to  
start somewhere.  
Seven people  
talk about how they  
got their start.



“I taught at the Telecom Institute in Sudan and quickly learned that knowledge alone doesn’t make that much of a difference — you have to be able to explain things. How much did I earn? 200 dollars a week.”

**Mo Ibrahim, 72**, British-Sudanese mobile telecommunications entrepreneur, is working towards achieving better governance in Africa.



“I delivered newspapers as a young teenager, riding my bike through the entire district every afternoon and on Sunday mornings. It was quite hard work and paid very little. I soon realized that I did not want to make a living from manual labor. I also learned a lot about what was going on in the world because I read the paper every day.”

**Jimmy Wales, 52**, co-founder of Wikipedia and internet entrepreneur.



“At my first job, I was a senior staff member of the social-economic and financial policy department at the Scientific Institute for the Christian Democratic Alliance (CDA) in Holland, the political party’s think tank. I had a fantastic time there. We played an important role in designing policies for a responsible society. The staff members published material covering the significance of basic principles, responsibility and solidarity for the different policy sectors. Our mission was to improve the quality of society and life by balancing the roles of government, civil society, business and people themselves.”

**Jan Peter Balkenende, 62**, former Minister President of the Netherlands (2002–2010). After retiring from his political career, he worked at Ernst & Young as a partner for corporate responsibility and currently serves as a professor of governance, institutions and internationalization at Erasmus University in Rotterdam.



“My first job was as an intern for the reporters at ‘Merthyr Express’ [Editor’s note: a local Welsh newspaper]. It taught me to listen to people and to refrain from judgment as much as possible. Above all, it taught me to be fair. I earned 2,000 pounds. A year!”

**Richard Sambrook, 62**, is a legend of British journalism. He spent 30 years working for the BBC, is a professor of journalism and the director of the Centre for Journalism at Cardiff University School of Journalism, Media and Culture.



“I waited tables in a fish restaurant where I learned a lot about teamwork and how we all need to pull together to be successful.

While doing this job, I also came to the realization that there are no shortcuts in life. To get somewhere, you need to stay focused, work hard and be disciplined.”

**Dambisa Moyo, 49**, is an economist from Zambia. Her book on development aid, “Dead Aid,” has sold over seven million copies, and she made Time magazine’s list of the 100 most influential people in the world in 2009, the year the book was published.



“While studying political science, I worked a side job at the Paris office of the European Commission. My passion for Europe

developed during this time, and it burns just as brightly today. Whatever the difficulty or crisis at hand, the EU is a unique political and economic process. I don’t even remember what I earned there, it was so little. But I had an amazing boss and I learned a great deal about the importance of strong team spirit.”

**Christine Ockrent, 74**, is one of France’s best-known journalists and television presenters. She is originally from Belgium.

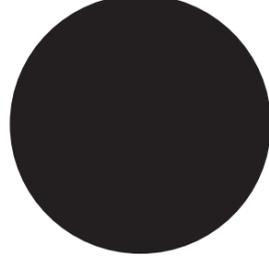


“My first job was in 1976, and I worked as a civil servant of the city of La Paz. I was 22 years old.

My colleague and I were tasked with organizing the La Paz film archive, Cinemateca de La Paz. Shortly thereafter, the country’s first moving picture archive was renamed Cinemateca Boliviana, now 42 years old. I guess I earned around 150 dollars a month. It was an extraordinary experience because it combined the freedom of youth — a time when you think everything is possible — with the challenges of a major project. My life lesson was learning that my actions must have value and serve the community. Re-creating the memories of Bolivian society through pictures was a big adventure. We weren’t really aware of what we were getting into — the main focus was on learning responsibility, achieving goals and using time efficiently.”

**Carlos Mesa, 65**, former president of Bolivia (2003–2005), is the author of over ten books.

Compiled by  
Simon Brunner



Photos: Mo Ibrahim Foundation; David Rose / Rex/Shutterstock; Helen Truman / Pink Orange Photography; The Ockrent / Sipa / Dumas; David Mercedo / Reuters

The people on this page are counselors of One Young World, a non-profit organization headquartered in the UK. The aim of the organization is to bring together young leaders from all over the world to develop solutions for the most urgent pressing issues. A summit is held each year; in 2018 it will take place in den Haag from October 17–20. Credit Suisse is a delegate partner to One Young World. [oneyoungworld.com](http://oneyoungworld.com)

# From Job to Job



Metropolis Buenos Aires: Independent contractor in Torre Bellini, one of the city's newest office buildings.

# Quiet Revolution in the Job Market: Independent Contractors With Short-term Digital Jobs Are Replacing Permanent Employees – Such as in the Fast-Growing Gig Economy in Buenos Aires.

By Andreas Fink (copy) and Marco Vernaschi (photos)

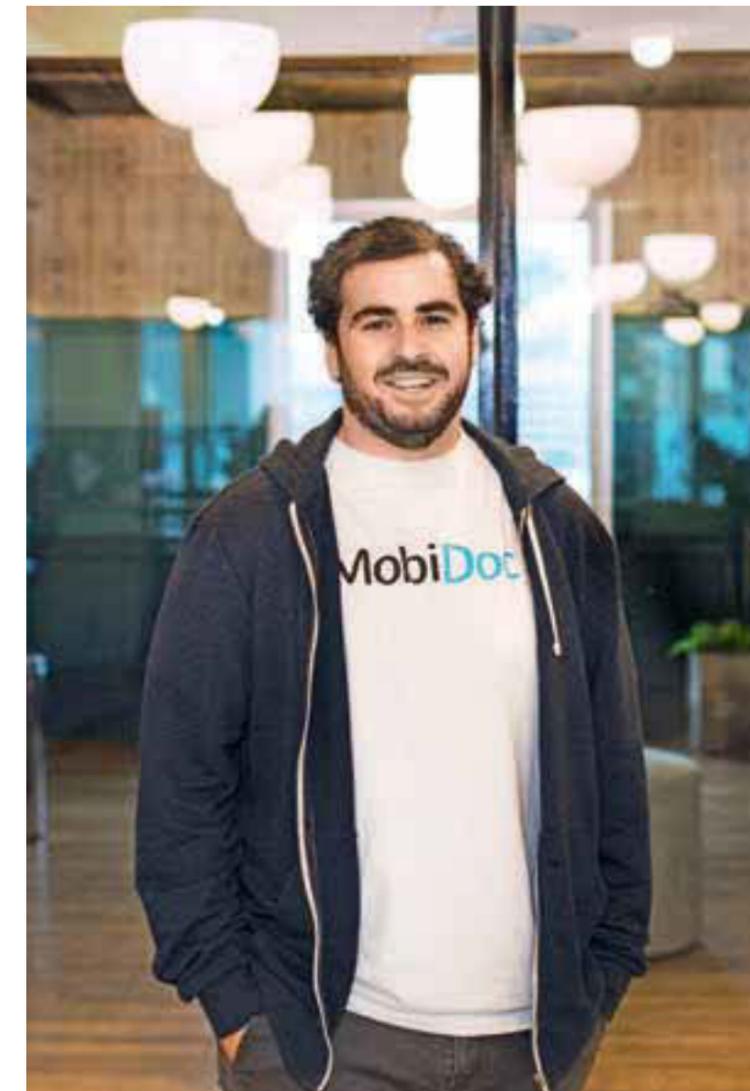
# M

Monday, 8:55 a.m. The week starts out dark, with heavy clouds hanging low over the city’s business district. Pedestrians walk close to the buildings to get some protection from the wind blowing in off the water. Winter in Buenos Aires is a contrasting mix of overheated interiors, jam-packed streetcars, and busy sidewalks. And a hotbed for germs with 14 million potential victims. Including Martín Sterenstein – he has a bad cold. He recommends not shaking hands when we meet. Any doctor would give him a sick note, but he doesn’t have time to see a doctor, much less stay in bed. Building a business takes fortitude.

“Should we sit here or over there,” asks Sterenstein, pointing to wooden tables set up in rows of three near the two panorama windows on the 12th floor of the Torre Bellini building. It is one of the city’s newest office buildings, 25 stories in the Microcentro, the tightly packed business district. We choose the southern side with sweeping views of rooftops, terraces, and a sea of buildings. Sterenstein, 30, sports a full beard. He takes off his thermal jacket to reveal a white T-shirt bearing the logo of today’s topic of conversation. “MobiDoc” it says, printed in black and sky-blue, the national color at the Río de la Plata. But the company doesn’t have anything to do with medicine. It’s about valuable mobile phones, about a new kind of service, about the internationalization of a successful business model. And about the gig economy, how many people predict we will work in the future. In fact, Manpower employment agency proposes in a new study: “The gig economy will revolutionize the job market and become the new normal.”

### iPhone Repair While You Watch

But one thing at a time: Coffee? Sterenstein crosses the open room and fills two black mugs at a machine. Back at the table, he says: “So, we’ve been in Buenos Aires for six months to establish our service: We repair iPhones on location with the customer watching. It takes 30 minutes at most. Our technicians arrive on site within two hours after the request.” Repairing smartphones doesn’t seem like a particularly new or original business idea at first, but MobiDoc wants to fundamentally rethink this highly fragmented business. Sterenstein sees himself as a disruptor. “Yes, people have often compared our business model to Uber,” he says somewhat hesitantly.



The courts have banned that car service in Buenos Aires, not because of its human resources policy but because of pressure from taxi unions.

MobiDoc’s iPhone doctors have been practicing in the company’s home of Uruguay for six years. Their successful idea is to repair devices while the customers watch, so that they can feel secure that their personal or business secrets will not be stolen – something that happens far too often in South America. Intimate videos of TV stars in particular circulate online, usually stolen by dubious technicians. >

1 Cloudy and rainy: Monday morning, 8:55 a.m., in the business district of Buenos Aires.

2 “Uber business model”: MobiDoc’s Martín Sterenstein repairs mobile phones.

And the Uber aspect of the business? MobiDoc only wants to hire some of its service force as permanent employees. “We will cover the rest with independent technician contractors.” The rules are clear: “We provide these experts with training, a uniform, tools and, above all, our customer contacts.” This includes wealthy private individuals, but primarily companies, such as banks, insurance companies, KPMG Management Consulting and the logistics giant DHL. The independent contractor technicians must agree to comply with the service code of conduct and set work schedules. But they can also have their own customers, too. This enables them to earn more, making up for the company’s lack of contributions to health insurance premiums, accident insurance and payments into pension funds.

**The Trend Toward Gig Jobs Is Global**

This type of employment, which has made Uber world-famous, is considered the prime example for a phenomenon that is still new enough to not yet have a defined name. Studies use related terms like “sharing economy” (see page 61), “platform economy,” “crowd work,” or the term we’ve chosen here: “gig economy.” An economic system where independent entities provide gigs, meaning project-related services, without a permanent employment relationship.

Like musicians, a growing number of independent contractors make their way from one paid project (or gig) to the next. This development is facilitated by the increasing digitization of work and communication. Digitization eliminates regional, national and time-related limitations. Many people can do their work online from anywhere in the world independent of time constraints. Companies ranging from small startups to major firms are increasingly relying on temporary digital contractors. After all, the “crowd” is available at any time day or night, anywhere in the world and is seemingly inexhaustible.

Often the gig is under a company’s name – as is the case with the giant Uber or the startup MobiDoc – but invoiced on their own account. This strategy may sound familiar: Independent insurance agents have been selling insurance policies this way for decades. But what makes Uber, MobiDoc and thousands of other services new – and worth exploring – is the lightning-fast coordination through the internet between the customer, service and provider, offering a web of good opportunities that spans the globe.

The gig job trend is global, which is why you could tell this story anywhere on earth and in countless major cities with unlimited access to the internet. One reason it’s happening in Buenos Aires is because of the setting. Not only is the Torre Bellini one of Argentina’s most modern office buildings, it’s one of the newest subsidiaries of WeWork. The organization is

**Buenos Aires**  
One of South America’s largest metropolitan regions with 14 million residents, and the business hub of Argentina.



currently valued at 20 billion US dollars and leases office space to entrepreneurs in metropolitan cities along with membership in an international network with 400,000 members who could potentially become business partners as well.

**Co-working as the Ideal Office Formula**

Monday, 11:15 a.m. Mane Ricardo invites us into her new office. The elevator stops at the 15th floor, and Ricardo, an independent graphic designer in her late 30s with corkscrew curls, leads us down the corridor and opens a sliding door to a triangular cell. Inside: A desk, chair and dresser with a few flyers she designed lying on top, catalogs, posters. This office, she says, is the best thing that could have happened to her. In fact, co-working seems to be the ideal office formula for the gig economy. Not just for financial reasons: The people sharing the office space may need exactly those services that you provide, or they know someone who needs them.

Mane Ricardo’s situation was complicated when she had to pay the 1½-month fee that WeWork requires from all new members. Several of her regular customers were experiencing difficulties and cut their design budgets. She had to give up her studio and moved into the newly opened Torre Bellini, or more specifically to the wood tables on the 12th floor, with her computer and most important documents in her backpack. In this common area where some of the independent contractors worked, others ate lunch, played table tennis or met with customers, it didn’t take long for Ricardo to bring in some new projects. Now she is planning an international expansion via WeWork because the membership is >

Digitization eliminates regional, national and time-related limitations.



1

- 1 “Going international is definitely my next step”: Graphic designer Mane Ricardo.
- 2 Moment of silence in the Puerto Madero business district: The most expensive spot in Argentina.
- 3 “Work when there’s work to do”: Common area for independent contractors.



3





1

global. She has already been to Miami and is now making contacts in Chile. “Going international is definitely my next step,” she says, full of confidence.

### Independence Is Key

In 20 years on the job, Mane Ricardo has designed everything from tiny app icons to billboards as tall as buildings. She always worked on a project-related basis without set work times, always on her laptop, and always delivered her designs online. Thus, she was part of the gig economy before it was even defined as a phenomenon.

For her, the independence is key: “I absolutely cannot imagine sitting in an office from 9 to 5 and being told what to do.” As the daughter of a small business owner, she already found it normal during college to “work when there’s work to do,” whether it was Saturday morning or Sunday night. She never really dreamed of pursuing a permanent position, which was surely helped by her country’s constant economic turbulence. But she certainly doesn’t have any trouble describing the positive sides of being an independent contractor. She was able to continue working from home before and after having two children, before eventually returning to full-time work, and she has the freedom to take a long weekend occasionally or work at night when the summer heat isn’t so oppressive.

Social scientists have divided workers in the gig economy into four groups: Those who are independent contractors voluntarily and earn their living this way, those who take on independent side jobs to supplement their wages, those who

2



are independent contractors but would rather be permanent employees, and finally those who were forced to earn supplemental income due to financial difficulties. People in the first two groups were generally more satisfied with their situation than those who were forced to become independent. However, people like Mane Ricardo who are independent contractors of their own free will are in fact significantly more satisfied than employees in the traditional economy.

### Providing Services for Silicon Valley

Monday, 1:30 p.m. Kyle Hurst chose a high trampoline for diving headfirst into his career. He has taken his place in the gig economy on the 24th floor of the Torre Bellini, at the point where the two glass panoramas meet. Hurst sits relaxed on a black leather bench that encircles one of the pillars, watching rays of sunlight pierce the clouds and cast bright spots on the gray cranes at the harbor. He can afford to show up at the office in the afternoon wearing jeans and a shirt with the top button undone, because his professional habitat is four time zones away.

Hurst, 21, just graduated from college and now works for Silicon Valley, which is some 10,360 kilometers away from Buenos Aires. He works online, primarily by making telephone calls via his laptop. His first job consists of finding potential sellers with good customer lists. He’s been contracted by a digital platform from the Bay Area that wants to match up sales professionals with software developers, and his task is to promote new products in a targeted approach. “I call up these people and ask a few standard questions, so I’m something like a door opener,” says Hurst.

And why is he doing it from Argentina? “Well, because I like it here,” he grins. Originally from the Los Angeles area, Hurst came to Buenos Aires as an exchange student a few years ago. He quickly fell in love with its slightly rundown beauty and returned as an intern. He demonstrates the sunny side of the gig economy: working when, how and where you want to. Ideally you find an employer in a high-wage country and live where it is cheap and beautiful – which is why veritable hotspots have

1 “I’m something like a door opener”: Kyle Hurst searches for potential software sellers for Silicon Valley.

2 Young people only make up 25 percent of the independent contractor market: Café on the 24th floor of the Torre Bellini.

### Gig Economy

The term “gig economy” emerged in 2009 in the US during the financial crisis. Many people who lost their jobs tried to earn their living with several small jobs. The term later became established through online platforms like Uber and Airbnb. These days it describes the environment in which companies temporarily engage independent contractors. Labor statistics do not capture the distribution of the gig economy and differ widely. According to the International Labour Organization, more than 30 million people were registered with the top 11 crowdsourcing platforms in 2014. There are 162 million independent contractors working in the US and EU-15 states according to McKinsey. A study from Deloitte states that one quarter of all workers in Switzerland engages in temporary, supplemental, or project-based work.

sprung up in Thailand, Bali, Morocco, Greece and Argentina. But Hurst also talks about the downsides. He’s still on his mother’s health insurance – and, as an independent contractor, he is responsible for paying his own taxes, social security and healthcare.

The sunny side of the gig economy: working when, how and where you want to.

This aspect is what people criticize about the economy of supposedly good opportunities. Social scientists and unions warn that this could lead today’s service providers to become tomorrow’s welfare cases, because many of these independent contractors do not have the discipline or financial means to provide for themselves in old age. Uber brought the debate into the public policy realm and stimulated discussion about regulatory matters for the gig economy in many countries.

Monday, 4:15 p.m. The discussion about age and the gig economy is misguided, says Alejandro Marval as he stirs the foamed milk in his café cortado. Leaning against the trapezoid-shaped bar on the 24th floor, he sees opportunities for retirement-age people in the gig economy. “Why shouldn’t experts work anymore, despite their extensive experience, just because they’ve reached a certain age? That’s an enormous waste of resources.” >

A report by the McKinsey Global Institute shares this opinion. Not only does it highlight that previous statistics massively underestimated the extent of the global gig economy, it also refutes a few common assumptions: The independent contractor market is not dominated by young people. They only make up 25 percent. And it encompasses every income class, education level, industry and gender.

## “Back in Venezuela, the only thing that still worked was the internet.”

### LinkedIn Is More Important Than a Doctorate

You can find every generation in the Torre Bellini. Just a few tables down from 28-year-old Alejandro Marval is Francisco Gutiérrez de Arrechea, 46, who worked for years on the global expansion of Spain’s NH hotel chain and now consults for investors on hotel and restaurant projects together with his business partner in Spain. The gig economy has had a liberating effect on the architect, who worked for decades in highly structured firms. “My office has been reduced to a laptop, mobile phone – and everything that’s up here,” he says, smiling and tapping his forehead.

For Alejandro Marval, the gig economy is the only economic model that he knows first-hand. For eight years, he has been working from one project to the next. “There wasn’t any other way for me,” Marval remarks. A marketing specialist from Caracas, he settled in Buenos Aires a good two years ago. “Back in Venezuela, the only thing that halfway worked was the internet. That’s why I, like many of my friends, didn’t even look for a job in the local market. We went straight to the online platforms.”

He lists every market analysis that he produces, every project he participates in on his LinkedIn page. This is far more important in the gig economy than academic laurels or an optimized CV. Would he even be interested in a permanent job? He has gotten a number of offers, but he has turned all of them down because: “There are still a lot of things out there that would interest me.”

Marval would be an ideal spokesperson for the gig economy. He quickly formulates polished counterarguments for any and all doubts. Poverty among the elderly? It won’t be a problem for him because his jobs bring in enough to cover taxes as well as private health and pension insurance. Marginalization? The gig economy discriminates less than the traditional economy. People with physical disabilities can work from home. “You just have to do the job well.” Anyone who does that will get another gig.

And to anyone who remains unconvinced, Alejandro Marval says: “In the past it was unthinkable that a guy in his mid-20s from a bankrupt developing nation could develop a marketing strategy for a global company like the Marriott hotel chain. The fact that I was able to do that is the best argument for the gig economy.” □

■ **Andreas Fink** is a South America correspondent for Focus (Germany) and Die Presse (Austria).



2

1 Workspace and network for lease: Bar at the WeWork organization in the Torre Bellini.

2 “There are still a lot of things that would interest me”: Gig worker and marketing specialist Alejandro Marval.

3 In the Microcentro: The business district of Buenos Aires.

3



1





# “Incredible

The tectonic shifts in the labor market are affecting young people in particular. The business community and policymakers need to help them – but fortunately millennials are taking charge of their own destiny.

By IMF Managing Director Christine Lagarde

# resourcefulness”



Young people’s concerns vary by region and culture. But there are some questions that I hear nearly everywhere I go: Can I find meaningful work that allows me to help my community and support my family? Can I start my own business – and if so, how successful will it be?

There is much hope in these questions, but they also convey a sense of doubt and trepidation – and for good reason. Unfortunately, young people today are twice as likely to be unemployed as the general population. In France, for example, youth unemployment is nearly 20 percent, while overall unemployment is about 10 percent, with countries like Brazil and Egypt facing similar problems. Around the world, youth unemployment reached 71 million last year, according to estimates by the International Labour Organization (ILO).

To make matters more complicated, young people are confronted with technological innovations that could eliminate their jobs. This transformation leaves everyone – especially young workers – guessing which jobs will still be around a decade from now and how they can prepare themselves for them.

### Ever New Skills

Fortunately, young people have the tools in hand to prepare themselves for these tectonic shifts in the labor market.

In my conversations, I quickly pick up on the fact that this generation operates on a steep learning curve. Many students now embrace the idea of continuous training and take it as a given that they must add new skills throughout their lives.

I have seen firsthand the incredible resourcefulness of millennials as they try to take control of their future. Many are not willing to wait for a job in the civil service or in a large company. They strike out and start their own businesses. They devise new online platforms and discover markets that previously did not exist. What I see is a generation that, if faced with unemployment, innovates to create new opportunities.

But this approach alone is not enough. Governments have a responsibility to build an environment that allows >

# T

“The old,” as Oscar Wilde once remarked, “believe everything, the middle-aged suspect everything – and the young know everything.” That’s why I appreciate hearing young voices – from students to budding entrepreneurs to newly elected local policymakers. Their stories resonate with me because they are deeply felt, insightful and inspiring.

Photo: Stephen Voss/Redux/laif

young people to fully realize their potential. This means breaking down regulatory barriers, supporting entrepreneurs who may not succeed on their first attempt, and investing in mentorship programs. How can this be done?

#### No Magic Formula

There is no magic formula that works in all countries, but I see several practical solutions. One is structured vocational training, which has kept youth unemployment low in countries such as Switzerland, Germany and the Netherlands.

Another solution is giving young women better access to child care centers and flexible maternity benefits. These efforts can reinvigorate labor markets.

In certain countries, a 10-percentage-point decrease in gender inequality could boost growth by 2 percentage points over the next five years.

At the same time, our member nations need to remove barriers to competition and cut red tape. These reforms must of course be country-specific. In advanced economies, we estimate that if research and development were increased by 40 percent, nations could grow their GDP by 5 percent in the long term.

If they embrace those changes, they can bring new perspective gained from each position into the next.

To return to Oscar Wilde: He once said, “To define is to limit.” There is no precise definition of what a career or job will look like for the world’s young in the new economy. This opacity leads to understandable anxiety and uncertainty. At the same time, there’s no limit to the possibilities. This is the great opportunity for the next generation, and I trust that the entire global community will help them seize it. □

“Discovering markets that previously did not exist.”

#### How Can the IMF Help?

Wise policy decisions can encourage young people to work for themselves or start a company. Our mission at the IMF is to help address these challenges by encouraging greater public investment in education and job training programs – and we are pushing for such reforms in our lending programs.

We also need more public-private partnerships that can make training programs more effective. A good example is Singapore’s Skills Future program, which offers unconditional grants to all adults for training throughout their working lives.

But training is only one piece of the puzzle. There is so much more that governments and business can do to harness the power of innovation. Fintech, for example, is a fascinating field where more investment is needed.

#### A Career in the 21st Century

If I were entering the job market today, I would focus on two things. First, a willingness to learn throughout your life. There is no “end” to education; there are simply milestones of progress.

Second, openness to changing course. We no longer have the luxury of being trained only in one field or profession. In my life, I started as a lawyer, became a finance minister, and now lead the IMF. The younger generation will face even more twists and turns on their professional journey.

**Christine Lagarde**, 61, has led the International Monetary Fund (IMF) since 2011. A lawyer, she previously served as the French government’s economics and finance minister.

© Christine Lagarde, “The Voice of Youth,” Finance & Development, June 2017

# Credit Suisse Youth Barometer

A Major Survey Targeting the US, Brazil, Singapore and Switzerland.

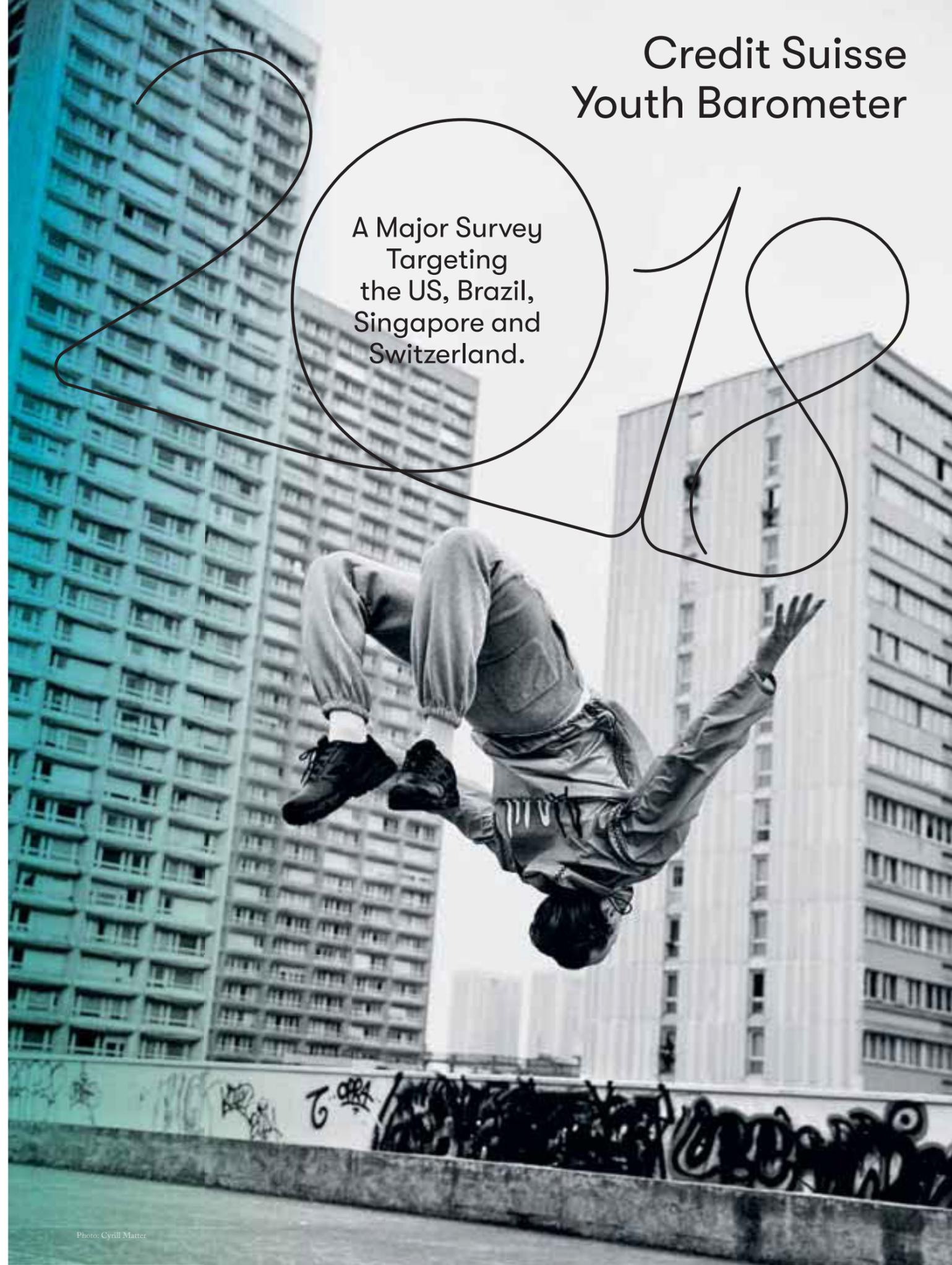


Photo: Cyrill Matter

## SERIOUS, CONSCIENTIOUS AND ANXIOUS

“Don’t let them get you down. Be cheeky and wild and wonderful,” said Astrid Lindgren, author of Pippi Longstocking. When you’re young, you can be wild and make mistakes. You should cast aside your inhibitions and enjoy yourself. This was a common opinion in the 20th century; people would refer to the “privilege of youth.” Today, when we talk about a “generation” and its “privilege,” we’re more likely to be talking about the baby boomers – a generation that has never had to worry much about jobs, and one that is now receiving full pensions.

Today’s young people are facing enormous challenges, with technological advances bringing constant change to the labor market. According to the 2018 Youth Barometer, a large percentage of 16- to 25-year-olds in the United States, Brazil and Singapore are anxious and worry that

their jobs may not even exist in the future (in Switzerland, the situation is viewed somewhat less pessimistically). So they are putting their money into savings accounts, dreaming of buying a home rather than taking a trip around the world, and avoiding drugs. It is striking to note that membership in groups like clubs and youth organizations is on the decline.

“Millennial values” is one of Credit Suisse’s supertrends – one of what we have identified as the five most important social changes of our time. United Nations data shows that people born after 1980 make up nearly 30 percent of the world’s population. If we want to sell to them, hire them or simply hold a civilized conversation with them, we need to understand their concerns.



The eighth Youth Barometer provides the necessary information. I hope you will find this publication both informative and enjoyable.

Steven F. Althaus,  
Head Global Marketing &  
Brand Communications

@CreditSuisse #youthbarometer #2018

## Contents

### 1 Jobs and Careers

Widespread fear of unemployment, life-long continuing education, a tech sector that appeals to young people – but is somewhat less popular in Switzerland.

### 2 Sharing Economy and Finances

Sharing instead of saving, substantial financial burdens, dreams of owning a home.

### Focus on Switzerland: Boris Zürcher

The Head of SECO’s Labour Directorate talks about our labor market: “The future is bright.”

### 3 Communication and Trends

The information gap is widening. Facebook’s popularity is declining. Gen Y and Gen Z have different digital preferences.

### 4 Politics and Society

Switzerland: Old Age and Survivors’ Insurance (AHV) is the top concern; coexistence with foreigners is becoming more harmonious. US: A striking trend toward mobilization. Everywhere people are demanding equality. With the exception of Switzerland.

### International Focus: Giulia Ranzini

Ranzini, an expert on millennials and the sharing economy, says members of this generation “take a different approach to ownership.”

### ABOUT THE REPORT

Since 2010, on behalf of Credit Suisse, Youth Barometer has gathered information on young people to contribute to the public discussion of social-policy issues. The 2018 Youth Barometer surveyed approximately 1,000 16- to 25-year-olds in each of four countries: ● Switzerland, ● the United States, ● Brazil and ● Singapore. The survey was conducted online by the GfS Research Institute between April and May 2018.

This analysis was prepared by Simon Brunner (editing, texts), Bill Schulz (layout, graphics) and Jonathan Calugi (illustrations).

The complete study can be found at [credit-suisse.com/youthbarometer](http://credit-suisse.com/youthbarometer)

Photo: Credit Suisse

# 1 Jobs and Careers

Under pressure, but not aimless: Young people are concerned about a changing job market. Switzerland is an outlier.

The 2018 Credit Suisse Youth Barometer begins with a dismal finding: A stunning percentage of young people in the United States (79 percent), Brazil (74 percent) and Singapore (76 percent) worry that “my job will not be needed in the future” → Figure 1.1. In these three very different economies, a large majority of 16- to 25-year-olds feel anxious. They expect technological advances to fundamentally change the labor market, and they are not confident that they will still have or be able to find a job in this new world.

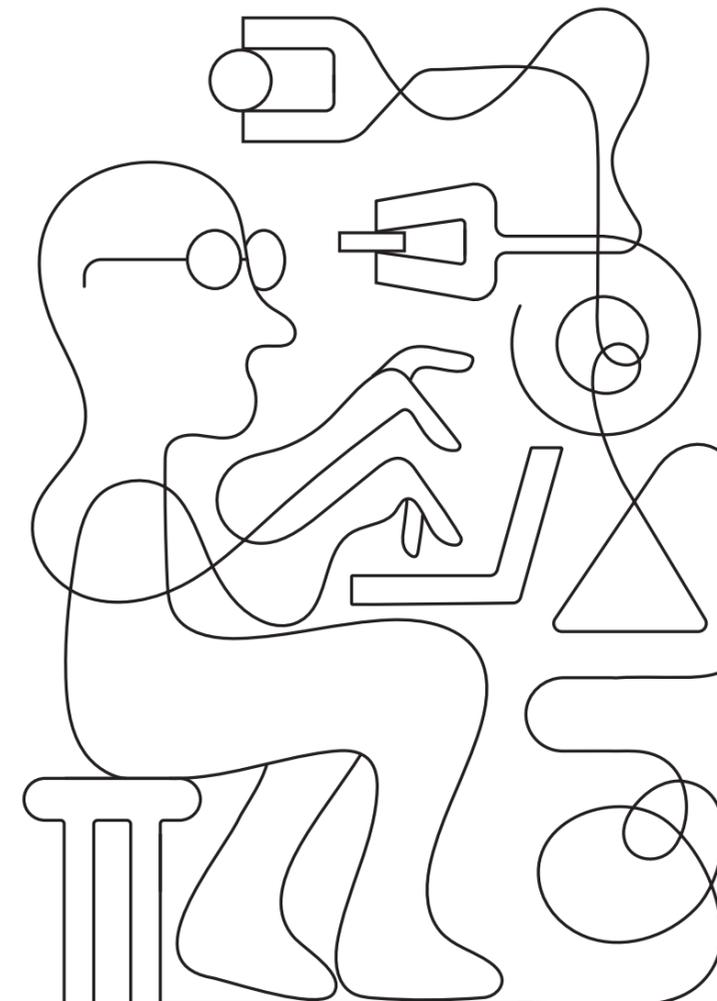
In Switzerland, “only” 34 percent are worried that their jobs will disappear. There are two possible explanations for the Swiss results. It may be that Switzerland lags behind international labor market trends, and that the shock is yet to come. Or perhaps Switzerland is better prepared to meet the challenges posed by digitization, automation and artificial intelligence. “Socially, economically and politically, we are well prepared to deal with change,” says Boris Zürcher → p. 63, head of SECO’s Labour Directorate, arguing in favor of the second explanation.

Responses to the next question confirm that in their perceptions of the digital revolution, young people in Switzerland differ from their peers in Asia as well

>

### 1.1 Fear of Not Being Needed

STRUCTURAL CHANGE “Do you agree with this statement? ‘I am worried that my job will no longer be needed in the future.’”  
— in percent



● CH ● USA ● BR ● SG

# Sharing Economy and Finances

Young people save by sharing, dream of owning real estate and are enduring financial hardship.

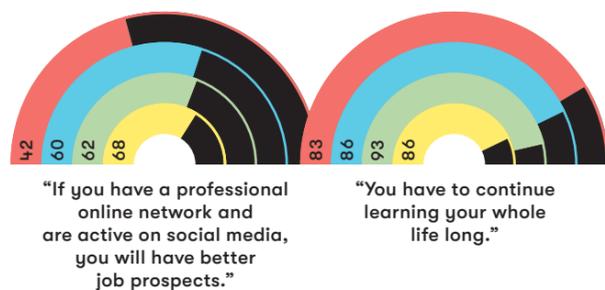
The sharing economy is one focal point of the 2018 Credit Suisse Youth Barometer. Among respondents, this economic model is quite popular, earning a grade of between 6.7 and 7.1 out of 10. What drives its popularity → Figure 2.1? One driver of the sharing economy could be the strained financial situation of young people today (see next page). The assertions “Sharing saves money” and “By sharing, I can buy things that I would not have otherwise been able to afford” garner strong agreement – this fundamental concept has already been seen in the shared apartments of the ’70s, and now technology makes it feasible for a wide variety of goods to be easily and safely shared with strangers – things like bicycles, vacation rentals of all sizes, jobs, loans (crowdfunding) and cars.

“Millennials have grown up in close contact with technology, and the idea of ‘shared content’ is familiar to them,” says Giulia Ranzini, an expert on youth and the sharing economy at the Free University of Amsterdam → p.70. “So they take a fundamentally different approach to ownership.” She adds that the idea of owning digital music, for example, seems absurd to a 19-year-old.

Interestingly, though, the concept of sharing has by no means replaced ownership as a status symbol. The majority of young people still want to keep valuable things for themselves → Figure p.70. Sharing ultimately

## 1.2 Networks, Continuing Education

LABOR MARKET “Do you agree with the following statements about work and training?” – in percent



as North and South America → Figure 1.2: Respondents in the United States (60 percent), Brazil (62 percent) and Singapore (68 percent) agree that individuals have better job prospects if they have a professional online network and are active on social media. In Switzerland, only a minority hold that view (42 percent).

The new work environment is also reflected in the kinds of jobs respondents would like to have → Figure 1.3. They would prefer to work in the IT/tech sector. While this industry is perceived as extremely attractive in the United States (75 percent), Brazil (72 percent) and Singapore (75 percent), only 43 percent of Swiss respondents are drawn to such occupations. It’s no wonder that we hear frequent complaints about a lack of tech workers in Switzerland.

## 1.3 Technology is “In” – Outside of Switzerland

DREAM JOB “In what industry would you like to be employed?” – Total for all countries, in percent

- IT/Tech sector
- Tourism
- Media
- Teaching/education
- Administration/federal government/canton/community
- Banks
- Health care
- Commercial
- Show business
- Luxury goods
- NGO/charity
- Pharmaceuticals
- Trades
- Agriculture
- Watches

In Switzerland, only 43% of young people would like to work in the IT/tech sector. 75% 72% 75%

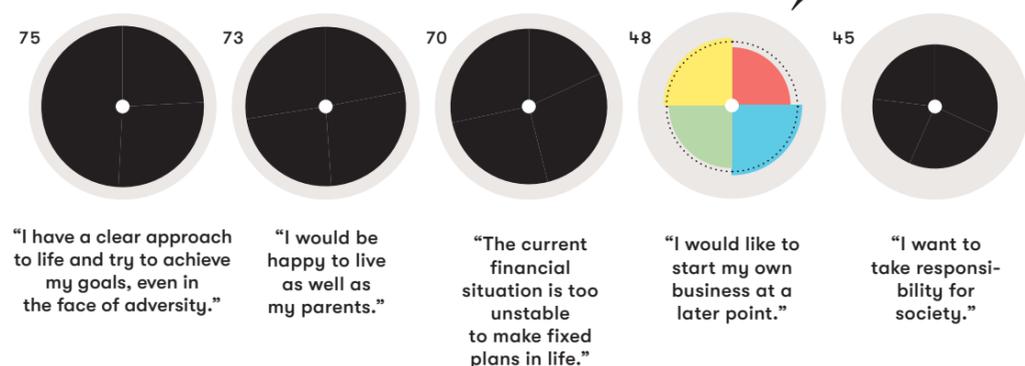
Young people regularly list tourism as one of the sectors they would most like to work in; this year it ranks second on their wish list. It is followed by the media – which may seem surprising at first, given that media consumption is on the decline among the young → Section 3, p.65. Presumably they are including social media in this category as well as new types of jobs, such as influencer and blogger. Government-related careers, which are particularly popular in Switzerland, rank fourth (education), fifth (administration) and seventh (health care). Among traditional employers in the business sector, banks, commercial businesses and the pharmaceutical industry are in sixth, eighth and twelfth place, respectively.

● CH ● USA ● BR ● SG

@CreditSuisse #youthbarometer #2018

## 1.4 Planning One’s Life

PLANS FOR THE FUTURE “To what extent do the following statements relate to your plans for the future?” – Average for all countries, in percent

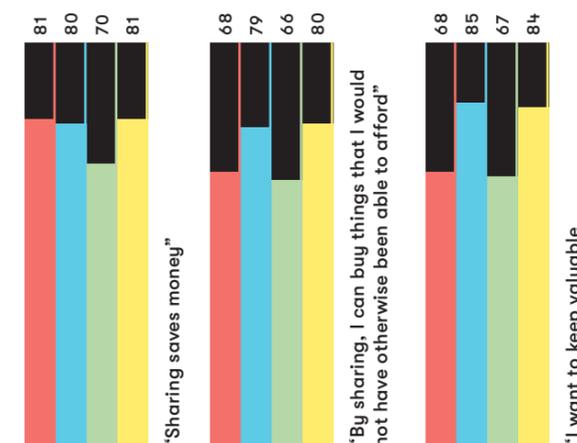


Would you like to start your own business? 39% 56% 45% 53%

Today’s young people may be somewhat anxious, but they cannot be accused of being aimless → Figure 1.4. Seventy-five percent of respondents in all four countries have clear plans for their lives and try to achieve their goals, even in the face of adversity. They can easily imagine starting their own business (half of all respondents, but only 39 percent in Switzerland) and they are prepared to take risks. Young people in all of the countries believe that continuing education is important. Between 83 percent and 93 percent agree with the statement that “You have to continue learning your whole life long” → Figure 1.2.

The determination they express probably has something to do with a challenging economic situation. Seventy-three percent of respondents would be happy if their lives were as good as those of their parents. In the 20th century that would have been perceived as a very modest goal. Young people seem to be looking for new ways to deal with the challenging situation in which they find themselves; one example is the extremely popular sharing economy → Section 2. Another positive finding is that nearly half of respondents want to take responsibility for society → Figure 1.4. ●

Sharing opportunities are viewed positively, most clearly so in Singapore (with a grade of 7.1 of 10). 6.7 6.8 7.1



## 2.1 Mine? Yours? Ours!

THE SHARING ECONOMY “To what extent do you agree with the following statements?” – in percent

offers more options. But the desire to accumulate wealth is still very important to this generation.

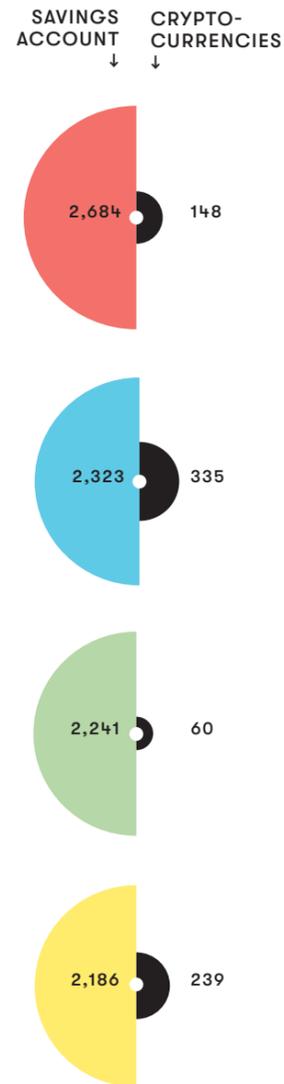
A classic element of the Youth Barometer is to ask survey participants what they would do if given a large amount of money → **Figure 2.2**. Fitting the image of the new, earnest youth of today, respondents in all countries would deposit around one quarter of the money into a savings account, with the most in Switzerland (27 percent). Another 10 percent of the money would be saved for a rainy day and yet another 10 percent for buying a house. In addition to smaller amounts spent on vacations or cars than in years past, this is the first year that young people would invest part of the money in cryptocurrencies.

Further statements regarding financial matters serve to further solidify the image of a conscientious generation → **Figure 2.3**. The vast majority want to own a home: 84 percent in Switzerland, 90 percent in the US, 94 percent in Brazil and 92 percent in Singapore. Equities seem to be a favored investment vehicle in order to reach this goal. Around a quarter of those surveyed also viewed charitable donations as a high priority.

In a way, one might get the impression that the young people in this survey were living a sort of “youth without childhood.” The situation on the labor market is rough → **Chapter 1**, and, when it comes to money matters, practicality and scarcity rule the day. Around half of the young people with financial obligations such as mortgages feel that these are a burden (59 percent in the US, 46 percent in Brazil and 48 percent in Singapore). In Switzerland, that group accounts for 39 percent. ●

**2.2 Savings Account vs. Cryptocurrencies**

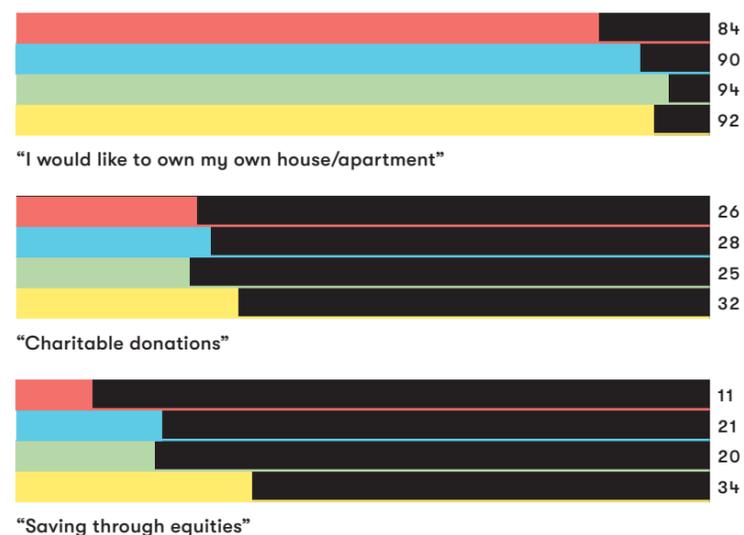
**THEORETICAL QUESTION**  
“Suppose you were given a gift of [CHF/USD/BRL/SGD] 10,000, what would you do with the money?” — in CHF/USD/BRL/SGD



Young people endure financial hardship.  
● 39% ● 59% ● 46%  
● 48%

@CreditSuisse #youthbarometer #2018

● SG ● BR ● USA ● CH



**2.3 The Eternal Dream of Home Ownership**

**FINANCIAL QUESTION**  
“How accurate are the following statements for you?” — in percent

# “Strong willingness to allow change to happen”

Boris Zürcher, Head of the Labour Directorate of the State Secretariat for Economic Affairs, forecasts a bright future for the Swiss: Institutions are ready for structural change to take place, and the young generation has a positive attitude.



By SIMON BRUNNER

Mr. Zürcher, an overwhelming majority of young people outside of Switzerland worry “that my job will not be needed in the future.”

Are they right? No, I do not believe that we will run out of work in the future. The fear that robots will take away our jobs is not a new phenomenon. It has not proven to be true as of yet, at least.

People are not as concerned in Switzerland. Why is that? Especially here, the technological advancements of the last two decades have always contributed to continued job growth and rising prosperity. This was primarily possible because, time and time again, we allowed structural changes to take place and our institutions encouraged those changes. Furthermore – on societal, economic and political levels – we have a

strong willingness to allow change to happen. As a result, we have low unemployment, jobs growth is stable, labor participation is high and wage trends are quite balanced and broadly supported.

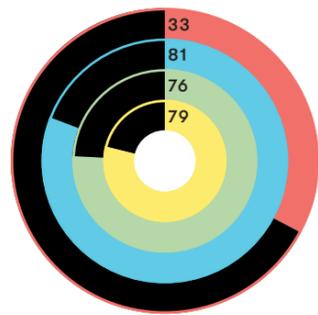
You’ve said that the Swiss labor market has a “bright” future. What is your optimism based on? Switzerland is currently benefiting from very favorable European and global economic growth. The economic recovery continued earlier this year as well, which translates into a positive impact on employment growth and a significant reduction in unemployment. And the recovery is likely to go on. The key indicators for the employment outlook and the jobs situation are at a consistently high level. These are all good reasons to consider the future to be bright.

While the majority of those surveyed in the US, Brazil and Singapore find the tech sector to be attractive, fewer than half of young people in Switzerland go into this field. Does this represent a problem for our future viability? I don’t consider it to be a problem. Not everyone can or would like to become a tech specialist. True, for some time we have been seeing stronger demand for technically skilled specialists, for instance in the areas of information technology and communications technology. However,

Photo: Christian Beutler / Photopress

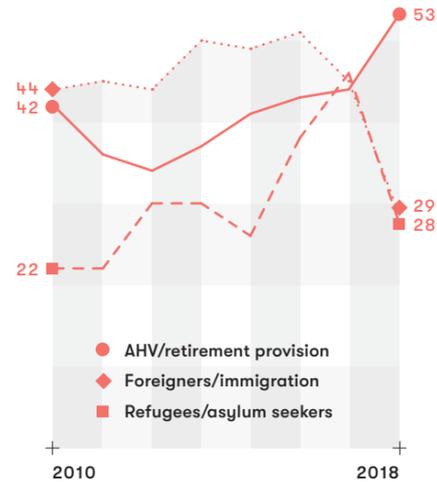
that does not mean that the tech sector is the only one with a demand for highly trained specialists. People with artisanal and social skills are also in demand. In particular, many qualified specialists are needed in health care and in the education sector.

In Switzerland, only 39 percent want to start their own company – significantly less than in the other three countries – even though Switzerland is known as the land of the SMEs! Why is entrepreneurship more popular in other countries? Based on international comparisons, we know that young adults in Switzerland are not as involved in start-up activity on average. However, more companies are founded by people in the middle years of their working lives. This can be interpreted as a positive thing. Education is apparently the focus in the early years. Founding a company becomes relevant when the experience and skills have been established to allow that business to succeed in the marketplace.



### Too Much of a New Thing

**STRUCTURAL CHANGE**  
*“Do you agree with the following statement: ‘I am overwhelmed by the rapid changes in the working world?’” – in percent*



### Problems: AHV More Than Foreigners

**SWITZERLAND'S GREATEST PROBLEMS** *“This list contains some topics that have recently received a great deal of attention. Please select the five that you consider to be biggest problems facing Switzerland.” – in percent*

● CH  
 ● USA  
 ● BR  
 ● SG

@CreditSuisse #youthbarometer #2018

## Artisanal and social skills are also in demand.

For the first time, the youth have named the Federal Old Age and Survivors' Insurance (AHV) as Switzerland's biggest problem. Is that development due to the strong media coverage of this topic, or are young people actually worried about their retirement? The public discussion leading up to the Retirement Provision 2020 referendum certainly contributed to the fact that the matter of retirement provision is receiving more attention even from young people. And yet this is not a case of an issue being temporarily hyped up. As a matter of fact, there is a pressing need to reform the AHV, as well as occupational pension provision. Excluding investment yields, AHV expenses have exceeded receipts for several years already. In light of this, it is certainly welcome news that the awareness of this problem is growing among the population and even more so among young people.

And how do we get them to begin saving right now? We are well positioned with the three-pillar system for retirement provision composed of AHV, occupational pension provision and individual savings. Those affiliated with a pension fund automatically build up retirement savings starting at 25 years of age, and that capital will later supplement the AHV pension. When the matter is considered from this perspective, the successful integration of young people into the labor market is extremely important. There are other reasons why this is a high priority, of course. Despite the tax incentives, individual retirement savings in the third pillar may not yet be quite on the radar for many young people. The important thing is that they behave responsibly overall. Depending on the situation, one Swiss franc spent on a person's own education or further education is actually a better invest-

ment in the long term than if it simply sat in a bank account. For years, questions about foreigners have dominated the ranking in the Worry Barometer, and now these have lost significance, as has the refugee issue. Has the situation really improved? In my interpretation, the approval of the mass immigration initiative shows that large parts of the population now have a sense of being heard. This is because the Federal Assembly also adopted measures aimed at slowing immigration. In addition, the migration balance has also recently trended downward, as has the number of asylum seekers. All of these developments have allowed the resentment surrounding this issue to dissipate somewhat. I assume that the topic would again become more relevant if immigration were to increase again.

According to those surveyed, the relationship between young foreigners and young Swiss people has improved significantly since 2010. How do you explain this?

When they come to Switzerland, young foreigners often encounter a social, cultural and societal environment that is completely new to them. Adapting to this new environment does not happen overnight. It is a process that takes time. The government takes a carrot and stick approach, supporting integration – through vocational education, for instance – and yet placing the burden of individual responsibility on foreigners. But integration is also a reciprocal process. The results of the survey seem to indicate that the shared responsibility is being borne by all parties involved.

You completed an apprenticeship as a technical draftsman. How do you explain to a foreign labor minister that it is not necessarily beneficial for a country to have as many young people as possible attend a university?

Two-thirds of the young people in Switzerland choose a basic vocational education. The dual-track vocational education system has a direct relationship to the working world. It is aligned with the actual professional skills that are in demand on the labor market. For this reason, Switzerland has one of the lowest youth unemployment rates compared to the other European nations.

Is Switzerland a model for the rest of the world?

I'm not so sure that our system can be simply copied wholesale over to another country. But other countries can certainly learn from the successful model in Switzerland and replicate individual elements of it. ●

# Communication and Trends

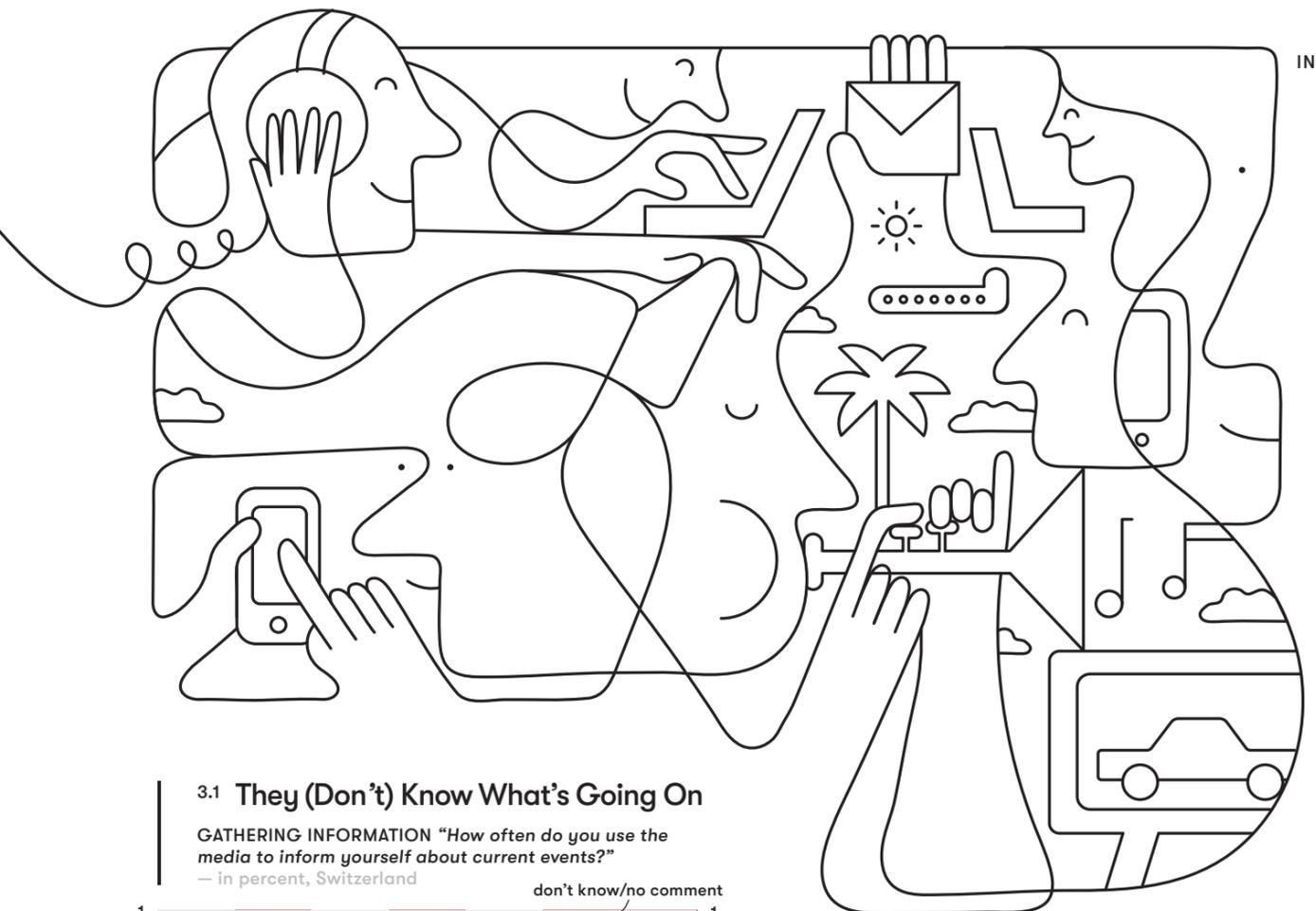
Here come the next ones: What differentiates Generations Y and Z? Plus: Facebook loses popularity, the information gap widens, what's hot and what's not?

This year's Youth Barometer provides the information necessary to make initial comparisons between Generation Y (born between 1980 and 2000) and Generation Z (born after 2000). All of those surveyed can be considered “digital natives” who spend a great deal of time online – and so, accordingly, these differences are evident first and foremost in digital usage patterns. The preferred platforms for Generation Y include Twitter, Facebook and the internet in general, and they even watch television sometimes. The younger Generation Z, in contrast, enjoys spending time on Instagram, Snapchat, WhatsApp and YouTube.

**Platform by age:**  
**GENERATION Y:** Twitter, Facebook, TV, internet  
**GENERATION Z:** Instagram, Snapchat, WhatsApp, YouTube

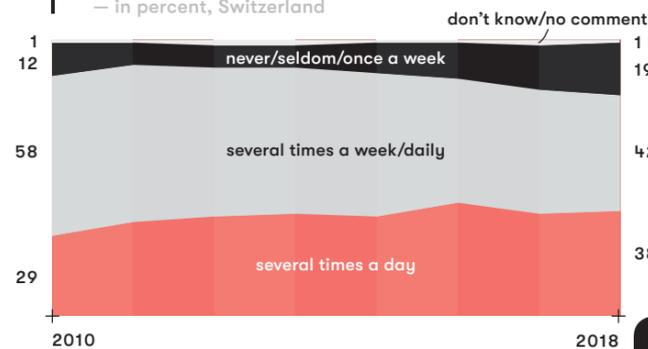
A polarization in how both of these generations gather information is evident in Switzerland → [Figure 3.1 \(next page\)](#). The good news: Young people accessing information about what is happening in the world multiple times every day grew from 29 to 38 percent since 2010. When seen together with the next two groups (“access information once a day,” “access information several times per week”), then four out of five young people are relatively well-informed about current events.

The not-so-good news: The group of young people who access that information only once weekly, even less frequently or never at all also grew since 2010 – from



### 3.1 They (Don't) Know What's Going On

GATHERING INFORMATION "How often do you use the media to inform yourself about current events?" — in percent, Switzerland

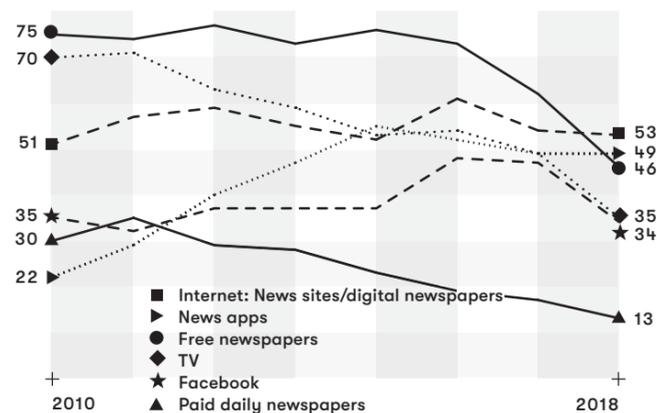


12 to 19 percent. In other words, one out of every five young people lacks any substantial information about what is going on in the world. The study also examined where the 16- to 25-year-old Swiss people collect information about world events → Figure 3.2. Practically all media saw a decline in popularity in recent years, but none more than the free print newspapers such as "20 Minuten" and "Blick am Abend" — up until 2016, these had been something like guideposts for

In all countries, 80 percent of young people in all countries spend two hours or longer online every day. And often a lot more than that.

### 3.2 Newspapers Under Pressure

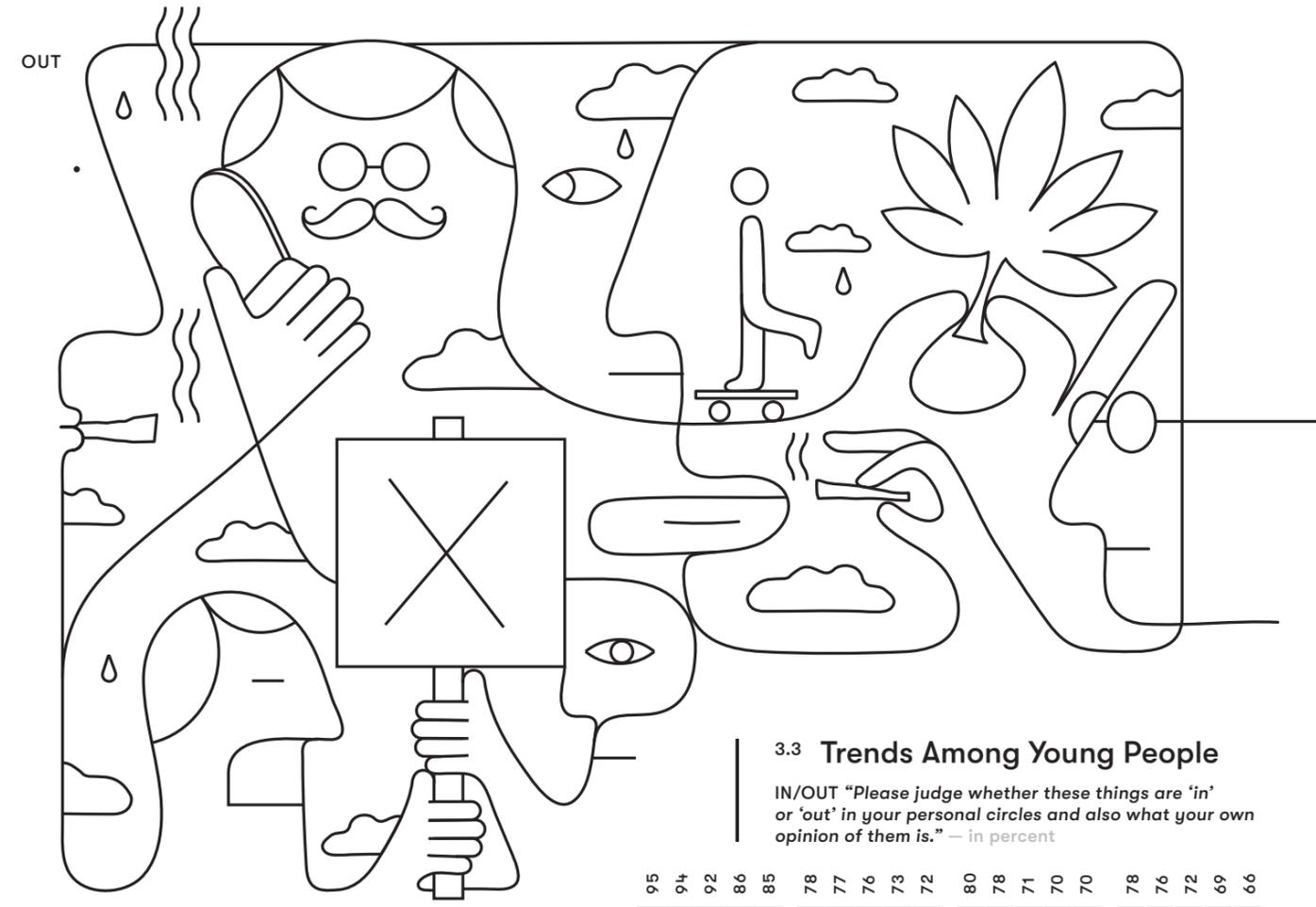
SOURCE OF INFORMATION "How do you keep informed about current events?" — in percent, Switzerland



this generation. This does not mean that the affected newspapers lost readership, as it appears that printed newspapers are often replaced by digital publications. News sites and digital newspapers are now most favored by young people, followed by news apps for smartphones and tablets.

Television and paid newspapers lost half of their audience since 2010. Radio managed to hold steady until 2015 and has lost popularity rapidly since then. But the loss affected not more than just the traditional media. The use of Facebook as a source of information grew from 2010 to 2015, and its significance has dwindled ever since. A major study conducted by the Reuters Institute (Digital News Report 2018) recently came to the

@CreditSuisse #youthbarometer #2018



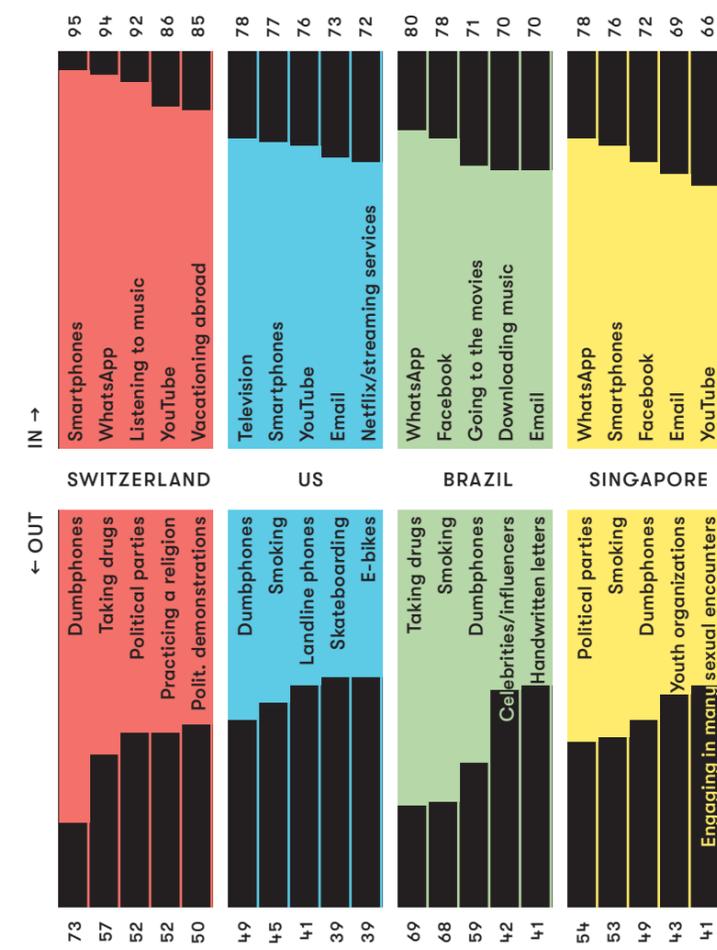
### 3.3 Trends Among Young People

IN/OUT "Please judge whether these things are 'in' or 'out' in your personal circles and also what your own opinion of them is." — in percent

same conclusion. On the one hand, Facebook has fallen out of favor among young people (see next section), yet on the other hand, the platform itself prioritizes user-generated content more highly than professional content. In any case, the Youth Barometer clearly shows how fast this new world is turning and how deep brand loyalty runs. The next platform is always just a click away.

What is currently hot, what is not? The internet is a must for everything that is considered to be "in," since 80 percent of young people in all countries spend two hours or longer online every day. In young people's hit lists → Figure 3.3, the smartphone ranks at the top (Switzerland) or second place (US, Singapore) WhatsApp, YouTube, Netflix and email are also "in." Facebook is popular, too, although it has fallen somewhat out of favor among young people. In Switzerland, it has even disappeared from the top ten list.

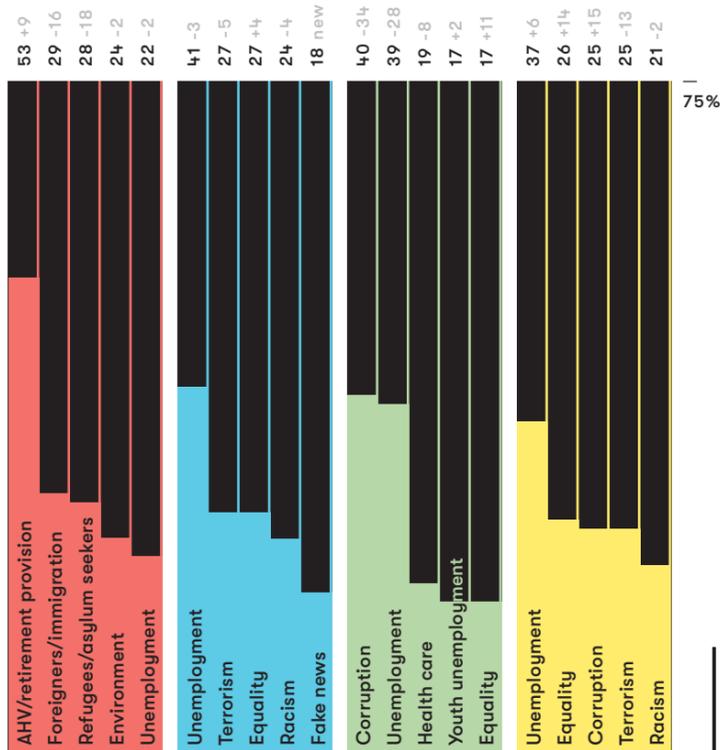
For the things young people consider to be "out," there is strong parallel across countries. Mobile phones without internet ("dumbphones"), smoking and drugs are unpopular, as are political parties. Just one distinctive local feature for each country: Practicing one's religion is considered uncool in Switzerland. E-bikes are out, or at least not yet "in" in the US. In Brazil, you don't follow celebrities on social media, and engaging in many sexual encounters is frowned upon in Singapore. ●



# 4 Politics and Society

Federal Old Age and Survivors' Insurance (AHV) is the new top-ranked concern of the Swiss, while coexisting with foreigners is rated more positively. Mobilization is trending in the US. A lack of equality represents a problem.

Retirement provision was a major concern, but nevertheless only 36 percent considered the relationship between the generations to be strained.



## 4.1 Top Concerns

PROBLEMS "Please select from this list what you consider to be the five biggest problems facing your country." — percentage change from 2016

Institutional politics and political parties may generally be considered passé → Chapter 3, but that doesn't mean that young people are uninterested in their country's problems or that they aren't engaged. So, what are the latest concerns in Switzerland, the US, Brazil and Singapore? → Chart 4.1

Old Age and Survivors' Insurance (AHV) tops the list of concerns in Switzerland, in line with the trend of the Credit Suisse Worry Barometer (see Bulletin 4/17 and credit-suisse.com/worrybarometer). There is a clear correlation to the pension reform referendum and its extensive coverage in the media last year. Despite the urgent need for AHV reform, only 36 percent of respondents considered the relationship between the old and the young to be strained — down from 40 percent in 2010. So, that means everything is fine? Not so fast: Only 18 percent of those surveyed considered the relationship to be harmonious — the largest group took a neutral stance on the issue (41 percent).

Clearly, the topic of foreigners and refugees has lost some of its urgency, while coexistence was regarded as more and more harmonious → Figure 4.2. In the words of Boris Zürcher, Head of the Labour Directorate of the State Secretariat for Economic Affairs, this result demonstrates how the approval of the mass immigration initiative gave "large parts of the population the sense of being heard" (p. 63). Still, he added his assumption that "the topic will again become more relevant if immigration increases again."

In the US, Singapore and Brazil, unemployment holds one of the top two spots in the problem ranking — even though the data from the International Labour Organization (ILO) shows that in some cases unemployment rates are lower than those in Switzerland.

One possible explanation is that job security in Switzerland is slightly overestimated in general. Or that, thanks to the well-established social insurance, the Swiss feel more secure than their peers in other countries.

In the US, Singapore and Brazil, gender equality is considered one of the top five problems (Switzerland: 10th place). Terrorism is also ranked very highly in the US (2nd place) and Singapore (4th place). For many years, corruption has been perceived to be Brazil's greatest problem, and now it has debuted in Singapore's ranking, coming in at third place.

In the US, where politics have grown more raucous in recent years, this has had a mobilizing effect. Compared to 2017, the popularity of political demonstrations grew from 16 to 33 percent, and calls for reforms increased from 75 to 85 percent. For the first time, the survey also covered fake news and gun control, which were both chosen by 18 percent of those surveyed.

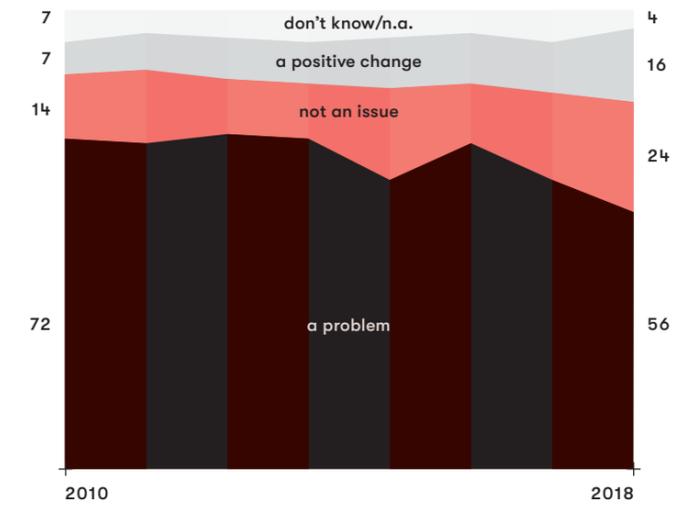
Young people in Switzerland were asked where they felt they belonged → Figure 4.3. Respondents could choose from nine different social units. With only a few exceptions, the sense of belonging has been declining since 2015. Friends and family remained the social units offering the greatest sense of belonging, while religious communities and online communities were those with the least. This general decline is thought-provoking, although it may be an indication of just how independent and confident this generation is. ●

@CreditSuisse #youthbarometer #2018

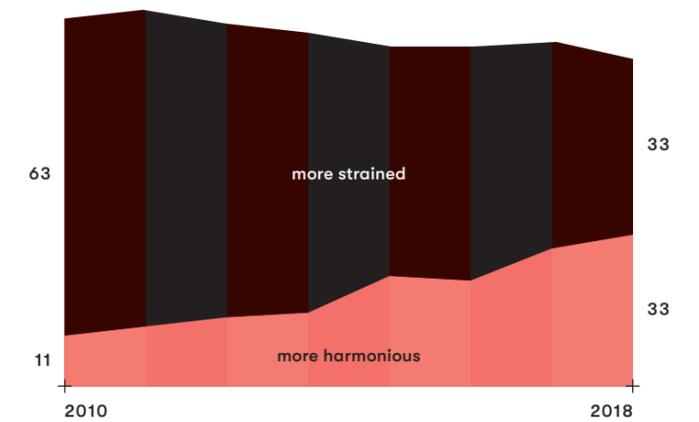
● CH ● USA ● BR ● SG

## 4.2 Greater Harmony

COEXISTENCE "Foreigners make up a growing share of Switzerland's population, a trend that is not expected to change in the foreseeable future. Do you see this as ...?" — in percent, Switzerland

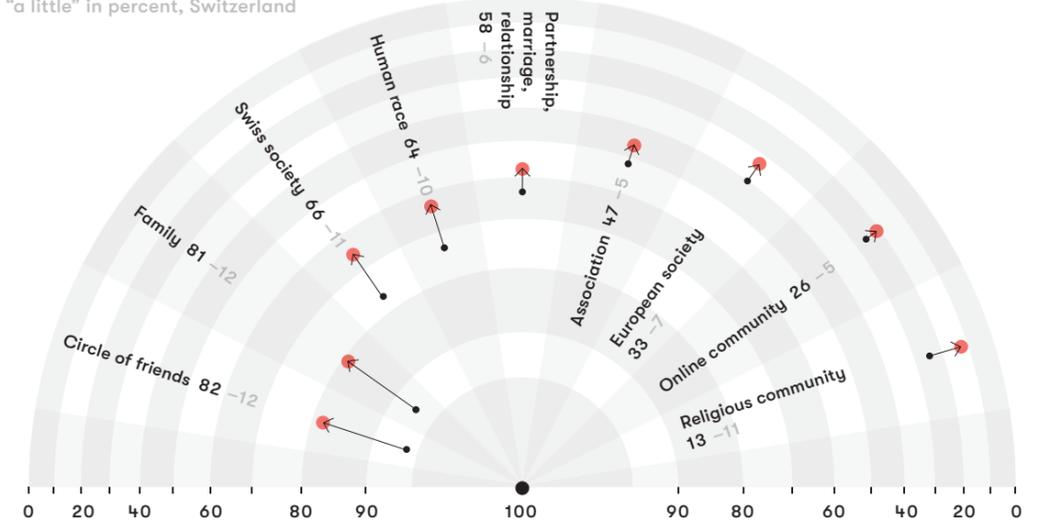


INTEGRATION "How would you describe the current relationship between young Swiss people and young foreigners?" — in percent, Switzerland



## 4.3 The Circle Is Shrinking

SENSE OF SOCIAL BELONGING "Which of the social units in this list do you feel like you belong to?" ● 2015 ● 2018 — Responses of "strongly" and "a little" in percent, Switzerland



# “They will never give up ownership altogether”

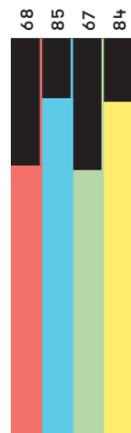
Giulia Ranzini, an expert on the sharing economy, talks about how millennials view ownership, loneliness on social media and protecting digital privacy.

“In today’s networked world, ratings are worth just as much as money”: ●72% agree in Singapore; ●72% ●67% ●45%

By MICHAEL KROBATH

Dr. Ranzini, the Youth Barometer tells us that most millennials embrace the idea of “sharing rather than owning.” Why is this generation so open to the concept of shared ownership? Having grown up with technology, millennials are used to the idea of shared content. So they take a fundamentally different approach to ownership. The idea of owning digital music, for example, seems absurd to a 19-year-old.

Are they also favorably disposed to sharing other types of products and services? Studies have shown that members of this generation now make up the largest group of users of platforms like Airbnb and Uber. It’s only natural, however, that 16- to 25-year-olds are more active on the “consumer” than the “sharer” side. They use the possessions of other people that they can’t afford to buy. When they



## No Sharing if Expensive

THE SHARING ECONOMY: “Do you agree with the following statement? ‘I want to keep valuable things for myself.’” — in percent

are making more money, they will hopefully be more involved on the provider side. But one thing is also certain: They will never give up ownership altogether.

The older generation tends to struggle with the idea of the sharing economy – despite its many advantages. Yes, older people have more difficulty with mobile technologies, and particularly with the various applications. As a result, they have fundamental concerns about these technologies; at any rate, they encounter problems and are less comfortable using them. They also worry about privacy.

In what cases will young people never embrace the idea of sharing? “Being an adult” has always been strongly linked with personal wealth, as demonstrated by possessing certain assets – such as a car or a house. It will be interesting to see whether this will change among the younger generation – but so far I’ve seen no evidence of that.

Are there cultural differences in people’s acceptance and utilization of the sharing economy? Ps2Share, a large-scale research project we conducted in collaboration with teams from five universities, found that the rate of participation in sharing platforms was highest in countries such as France and the UK and lowest in countries such as the Netherlands and Norway.

Is it a coincidence that people in wealthier societies are less interested in sharing? The economic situation might be one factor. But the main reason why a person chooses not to participate in the sharing economy seems to be a lack of digital skills. So a variety of factors are at play here.

In every social unit, and especially in online communities, we are seeing a decline in people’s sense of belonging. Should we be concerned about members of the millennial generation becoming increasingly isolated? In the case of online activity, this finding is not very surprising. There has been a dramatic change in the way younger people use social media; more and more,

users are leaving Facebook in favor of platforms like Snapchat and Instagram. These platforms tend to facilitate a “one versus many” rather than group-based kind of communication. It is therefore no wonder that users feel less like members of a group. The support of communities, what we call social capital, is less present in newer social media platforms.

You have conducted several studies to examine how people represent themselves on social media. How does the way young people portray themselves in the digital arena differ from who they actually are?

Every social network is different, and how users present themselves is greatly influenced by individual characteristics as well as by the composition of the respective network. On Myspace and Second Life, which were among the earliest social media platforms, users went by fictional names or even avatars. Today the world of social media is dominated by networks like Facebook, WhatsApp and

Nevertheless, it’s a good thing that schools are paying more attention to the topic of privacy, especially now that the line between online and off-line is becoming increasingly blurred. But I think these topics should be introduced at an even earlier stage.

What role should parents play? They need to be alert to signs of addictive behavior. And they should talk with their children about data privacy. The problem is that as technology is advancing so rapidly, they sometimes lose touch. They no longer understand the world that their children are navigating so effortlessly.

You’re an expert on the millennial generation. What social media do you use?

Now you’ve caught me. I really only use Twitter, and mainly to share content related to my professional life. And to be honest, I don’t draw a clear line between the professional and the personal, although perhaps I should. By the way, researchers have a name for this phenomenon – even when people are concerned about data privacy and aware of the dangers, they still fail to protect themselves. We call it the “data-protection paradox.” ●



GIULIA RANZINI, 32, is an assistant professor of communication science at the Free University of Amsterdam. Her research focuses on information sharing and social media. Ranzini, who is originally from Italy, previously worked as a research assistant at the University of St. Gallen.

The idea of owning digital music, for example, seems absurd to a 19-year-old.

Instagram, which generally include users’ actual names and personal photos. So it’s not so much a matter of reinventing oneself or experimenting with a different persona, but rather of deciding how to present one’s actual self. I don’t think this will change in the foreseeable future.

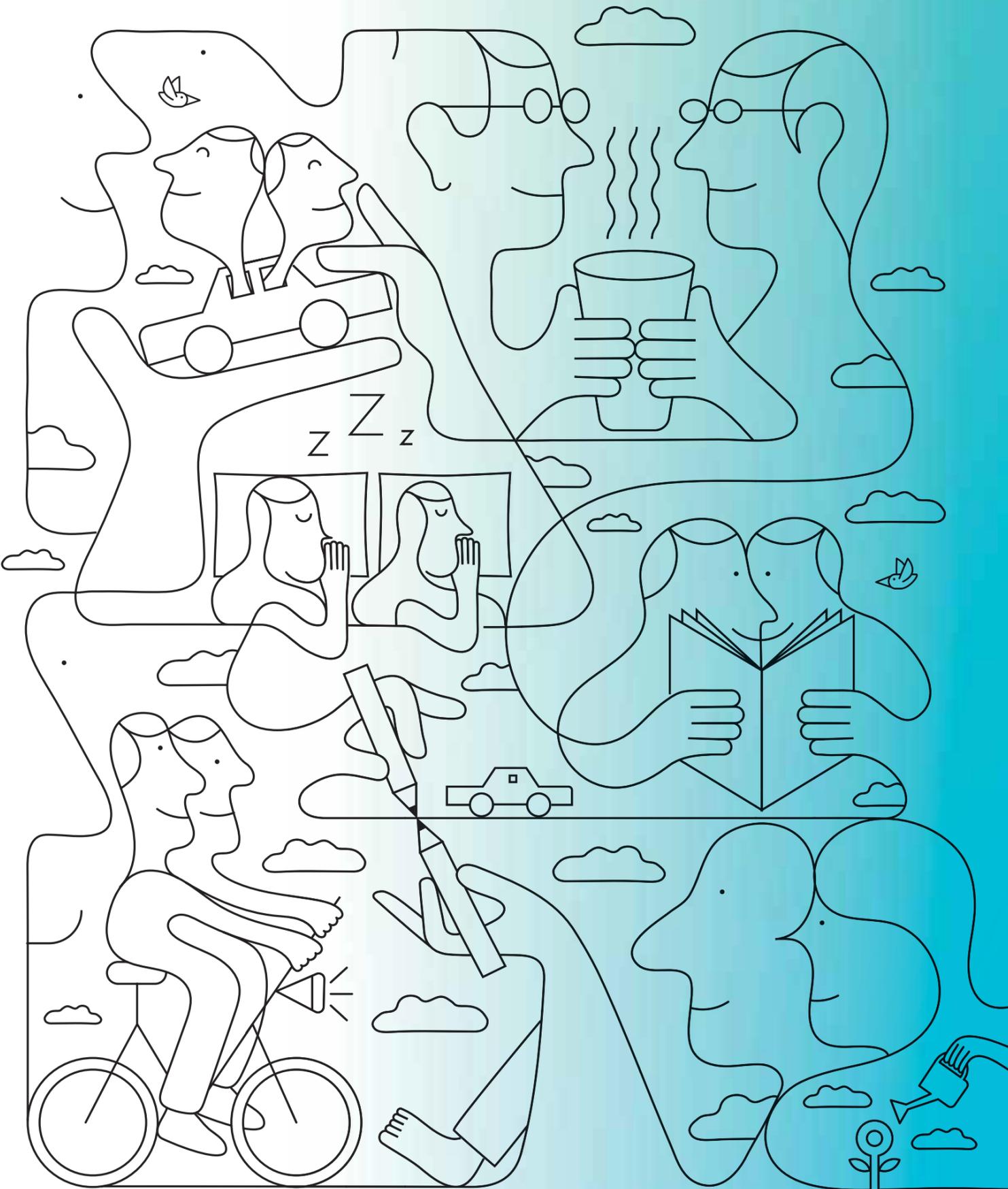
According to the Youth Barometer, young people are aware of online dangers and know how to protect themselves. Is digital security no longer a problem for this generation? Various studies have shown that teenagers are better at managing their online privacy than commonly thought – and they are also better at managing what we call online stress: the compulsion to be constantly online, for fear of missing out.

@CreditSuisse #youthbarometer #2018

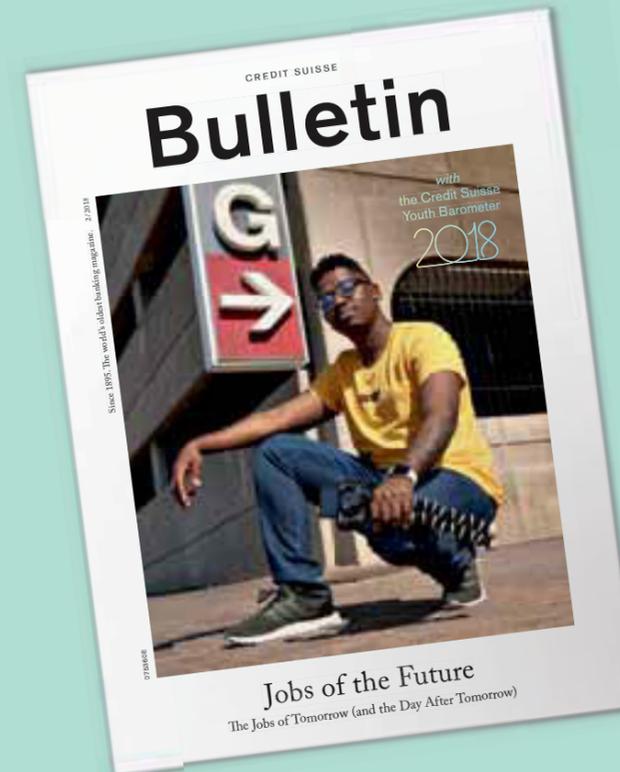
● SG ● BR ● USA ● CH

Photo: private archive

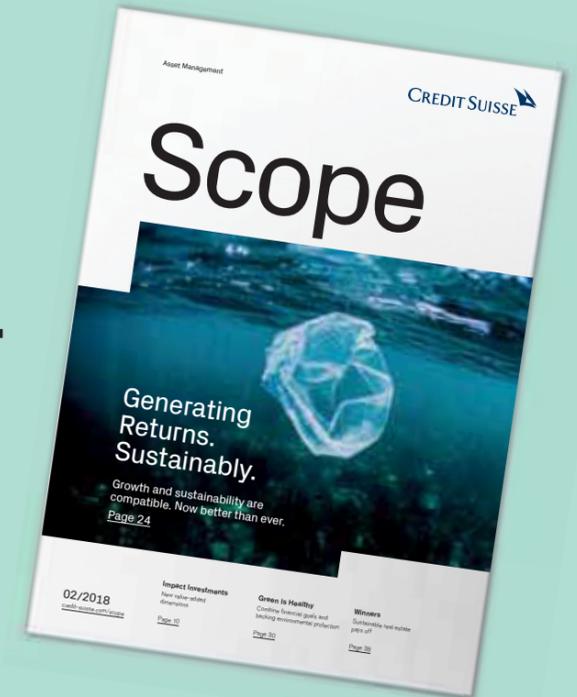
Sharing is popular: young people's new approach to ownership.



## Subscribe to ...



*The world's oldest  
banking magazine.*



*Know-how and investment  
themes from Asset Management.*

...or order other Credit Suisse publications  
free of charge at [credit-suisse.com/shop](https://credit-suisse.com/shop)  
(publications shop).

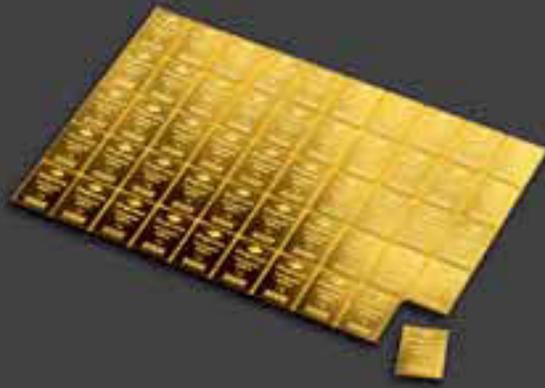
Electronic newsletters on current topics  
related to business, society, culture, and sports are  
available for subscription at  
[credit-suisse.com/newsletter](https://credit-suisse.com/newsletter).



# Degussa



GOLD AND SILVER.



## DEGUSSA: THE SIMPLEST WAY TO INVEST IN PRECIOUS METALS.

Gold has been the strongest currency since 2001 B.C. and is therefore considered a solid long-term investment. As the largest independent precious metal trader in Europe outside the banking system, Degussa is able to offer you comprehensive advice in our Swiss branches in Zurich and Geneva. We help you compile your personal investment portfolio with a wide selection of Degussa-branded gold bars that include a security number. We also offer bullion coins as an alternative investment opportunity. In addition, we have collectible coins and high carat precious metal gifts. For safe storage, we offer state of the art safe deposit box facilities protecting your assets 24/7. Further information and online shop at:

**DEGUSSA-  
GOLDHANDEL.CH**

**Showrooms:**

Bleicherweg 41 · 8002 Zurich  
Phone: 044 403 41 10

Quai du Mont-Blanc 5 · 1201 Geneva  
Phone: 022 908 14 00

